SLSA 2013 Conference Program

Noon—7 p.m. **Registration Desk open**, McKenna Hall First Floor

Session 1: Thursday 2:00pm-3:30pm

Session 1 (A)
Something in the Air
Chair: Melissa Dinsman, Notre Dame

Daniel Murphy, University of Notre Dame
Contesting the Flying Apparatus in Selden Rodman's *The Poetry of Flight* and *The Air-Men*: "Flight" as an Embodied Medial Event
This analysis examines understudied poet and cultural critic Selden Rodman, specifically his anthology The Poetry of Flight (1941) and his polemical four part poem The Air-Men (1941). Treating these texts on their own terms as an epistemological intervention and an argument for the renewal of poetry, this exegesis explains how the airplane, as a material correlative for "flight," provides for Rodman a historical occasion and thematic referent suited to the regeneration of poetry. Drawing from media theorist Joseph Vogl, this essay demonstrates how "flight" itself is a self-reflexive medial technology for Rodman, one that can be separated from the "airplane" where the former connotes liberty and the latter signifies the proliferation of mechanized production and the triumph of military rationalism. Flight is here imagined to be a humanistic, heroic technology that mediates or produces "exorbital" subjectivities, just as it is a vehicular metaphor for a poetry that "moves" subjects beyond the barriers of their bodies to know the other. Rodman's problem is to valorize the-poem-as-flight and the "airman" as a modern subject while precluding technological determinism. In the final analysis, this paper looks at the debates concerning airplane construction in the 1930s and clarifies how Rodman understands the tension of technological determinism by historicizing "flight" as a media technology and techno-social structure that can be extricated from an "ideology of metal" and its attendant subjectivies and modes of production.

Kieran Murphy, University of Colorado at Boulder
Electromagnetic Thought in Balzac, Poe, and Bachelard
Since the discoveries of thermodynamics and electromagnetism in the 1820s, physical manifestations that were once considered supernatural began to supply new models to explore metaphysical or difficult notions such as life, cognition, and communication. Scholarship has mainly focused on the interrelation of thermodynamics and culture, but similar studies on electromagnetism remain scarce. In this paper, I will examine some of the earliest instances of electromagnetic thought in works by Balzac and Poe. I will then trace its evolution and profound impact on twentieth-century philosophy via the emergence of an electromagnetic conception of history in Gaston Bachelard's idea of "epistemological break."

Francesca Maria Bordogna, University of Notre Dame
Beyond Man: the "Man God" as a regulative ideal for post-philosophy and politics in early twentieth-century Italy

This paper examines how the modernist magazine *Leonardo* (Florence, Italy, 1903-1907) functioned as a tool for illustrating to an elite readership a post-philosophical way of life rooted in a pragmatist epistemology and in a wide range of techniques of self-experimentation. The magazine served as a "laboratory" for a new variety of pragmatism-- "magic pragmatism"-- by setting up a regulative ideal for the "new philosopher" and the new politician: that of the "Uomo Dio" ("Man God"). This post-Nietzschean, post-human (and masculine) figure was defined by complete control over his "inner life" -- the life of the psyche. As a result, the Uomo Dio was also in command of truth and reality, both of which the magic pragmatists viewed as largely "man-made" in the course of processes shaped by psychological self-experimentation. I will explore how, by ostensibly pursuing the ideal of the "Uomo Dio," the editors of *Leonardo* transformed the pragmatist philosophy-- and, specifically, pragmatist conceptions of truth and reality--into a cluster of philosophical, mystical, psychological, and rhetorical exercises, aimed to increase the philosopher's control over his mind, and help create a new, powerful political elite. I will argue that the transformation of pragmatism into a way of life ended up radically reshaping both pragmatist philosophical theories and the mystical practices, with which the magic pragmatists engaged. The result was a form of pragmatist asceticism, which ended up functioning as a resource for a new political elite in the age of fascism -- the self-styled "fascist mystics."

Session 1 (B)
Garbage In, Garbage Out
Chair: Katy Wright-Bushman, University of Notre Dame

Lindsey Dillon, University of California at Berkeley
From Urban Cesspool to Nature's Kidneys: Wetland Restoration and the Work of Nature Along San Francisco's Industrial Waterfront
The paper explores the conversion of parts of San Francisco's industrialized waterfront into wetland habitats. Here, the "greening of brownfields" is not simply the conversion of industrial land to parks or open space, but the re-creation of salt marshes and tidelands which had characterized the Bay Area until those watery lands were diked and filled for the expanding needs of urban and industrial growth. Although these wetland projects are imagined as a restoration of the waterfront to a pre-industrial ecological space, my research foregrounds the ways they are in fact admixtures of persistent chemicals, synthetic liners, and methane diversion systems – all which are just as much part of these new wetland ecosystems as their marshy grasses and the daily inundation of the tides. The idea of these wetlands as restored nature therefore obscures their modernity. Constructed wetland habitats are also produced through multiple forms of human labor, including environmental justice campaigns for "green space" along the industrial waterfront, human health risk assessments and engineering work performed by multi-billion dollar corporations, and the constant plucking of non-native plants which maintain the notion of these wetland sites as pre-industrial natures. Foregrounding the synthetic materialities and multiple forms of human labor that constitute these postnatural wetlands can alter our ideas urban ecological life in the twenty-first century.

Lisa Walenceus, University of Notre Dame
Getting the Stains Out: "The Junkman" and the EPA's Superfund Program
When President Carter signed the Comprehensive Environmental Response, Compensation and Liability Act into law, he established the EPA Superfund program with the authority to compel responsible parties to clean up uncontrolled hazardous waste sites or to conduct its own site clean-ups, forcing reimbursement from responsible parties. Billed as the founder and publisher of JunkScience.com, Steven Milloy is a commentator on Fox News, a writer for FoxNews.com, and an adjunct scholar for the libertarian think tank Competitive Enterprise Institute (CEI). In Toxic Super Wasteful, published on the Cato Institute website on August 8, 2004, Milloy, who calls himself the Junkman, makes the following claim: "And so we come to the most important but least known of Superfund's 'dirty' secrets — there has never been a single shred of evidence and not a single documented case of anyone ever becoming ill, getting cancer or dying because of contaminants at a Superfund site." After 30 years of scientific effort and more than $32 billion in government expenditures (GAO 2008), are we in fact ignorant of any public health effects due to toxic exposures associated with hazardous waste sites in the United States? In this paper, I will explore whether or not the EPA's Superfund program is guilty of producing what Milloy calls junk science, "exaggerated or overinterpreted science used to advance some predetermined, often politically correct, politically desired, or financially lucrative conclusion" (Milloy & Gough 1996). Milloy is an example of how anti-regulatory rhetoric has made toxic waste "invisible" in the United States.

Margaret McMillan, University of Notre Dame
Garbage, Garbage, Garbage: Word Recycling and Mimetic Instruction in A.R. Ammon's long poem
The emergence of literary eco-criticism heralds an attempt by the humanities to raise awareness about the larger environmental crisis that scientists have long since acknowledged. With the introduction of Environmental Criticism, English scholars continue to discover how reading and writing in general, and literary studies in particular, can participate uniquely in promoting environmental justice. Contemporary poet A.R. Ammons examines this theme in his long poem Garbage, exploring the connections between language and agency, rhetoric and value, and the limits and promises of poetic instruction. In Garbage, Ammons creates a unique way of instructing without dictating, to answer the pressing question "How can we intercede and not/ interfere: how can our love move more surroundingly,/ convincingly than our premonitory advice," (17). He takes for his topic the trouble with trash, and attempts to provide a solution for the overbearing problem of landfill management. According to Ammons, a poem should imitate, through mimesis, how readers ought to behave. In his work, Ammons presents two landfills for the reader's inspection, the literal garbage that the poet describes and the verbal pile that comprises the poem Garbage, wherein language circulates, is used, re-fashioned, recycled, and renewed. Within the constructed 'word-world,' of the poem, Ammons engages with rhetorical devices of repetition, lineation, and parenthesis in order to model solutions to landfill overflow. For the reader, Garbage operates as an exercise in promoting certain environmentally conscious patterns of mind, providing the opportunity to cultivate new mental pathways of value-formation through the act of reading.

Session 1 (C)
Reassembled Subjectivity
Chair: Damiano Benvegnù, Notre Dame

Cynthia Bateman, University of South Carolina
Material Feminist Rhetorical Studies and Feminist Animal Studies: An Interdisciplinary Approach to Conducting Ethical Inquiries into the Practices and
This presentation argues for a theoretical approach that combines material feminist rhetorical scholarship and feminist animal studies to theorize about ethical concerns surrounding environmental enrichment for nonhuman animals. Environmental enrichment is any modification in the environment of captive nonhuman animals that seeks to enhance the animals' physical and psychological well-being by providing stimuli meeting the animals' "species-specific needs." This presentation begins with an overview of some of the conflicts surrounding environmental enrichment. It then provides background concerning the scope of material feminist rhetorical scholarship and feminist animal studies through the work of such theorists as Karen Barad, Judith Butler, Stacy Alaimo, Carol Adams, and Greta Gaard. Material feminist rhetorical studies demand that no separation between material practices and discursive ones occur. Such an approach makes a move from speaking about bodies to speaking about mere representations of bodies impossible and allows for the theorization of the boundary-making practices from which concepts like "species-specific needs," "animal welfare," and "enrichment" are derived and continue to function. It is this ability to insist upon the simultaneous consideration of material and discursive practices that, when paired with feminist animal studies' background in theorizing about the politicization of bodies, structures of power, and conditions of possibility for nonhuman animals, makes material feminist rhetorical studies and feminist animal studies ideal partners in engaging with questions about various routes and roles of oppression and speciesism within enrichment rhetoric and whether maximizing values like care, respect, and sincerity is possible alongside enrichment practices and protocols.

Maria Lux, University of Illinois at Urbana-Champaign
Creative writer/media/arts talk by Maria Lux
Historically, animals have been used to support the problematic notion of human exceptionalism, but with the encouragement of changing views on ecology, an explosion of animal-centered research, and new, post-humanist, or "post-natural" thinking, animals can also be helpful in de-stabilizing our long-held ideas of what humans are and how we relate to our broader environment. As a visual artist, I make work that focuses on animals as a subject, utilizing existing research in fields ranging from evolutionary biology, history, literature, or agriculture, as a basis for creating installation-based, multi-media works. My materials are chosen to reflect the subject, resulting in a variety of objects and images such as large-scale sculptures, ink drawings, wooden toys, dioramas, found objects, or quoted texts. Past works have considered topics such as the co-evolution of dogs and humans, questions of surveillance in production agriculture and its connections to secret Masonic rituals, power dynamics between a musical soloist and accompanist transposed over ideas about cross-species transplantation, or predator-vision and alternatives to a competition-based view of ecology. I view animals themselves and the

distinctive methodologies of creative/artistic research practices as similarly positioned to open up ways of knowing and understanding, with the potential to supply a fruitful and unique critical lens. This presentation will discuss several of my own pieces that most directly address human exceptionalism, offering to "de-naturalize" our way of thinking about animals and ourselves. Artist website: http://marialuxart.wordpress.com/

Julie Casper Roth, University at Albany
Autism as Evolution: Aspiring to Animality
As an artist, my recent video work focuses on the idea of autism being a form of human evolution. This work imagines a hypothetical future where the majority of the human population is on the autism spectrum and autism is considered neurotypical rather than dysfunctional. To better explore future humanity, I look backwards, exploring the genetic basis for autism. Most interesting to me is the connection between animality and autism – particularly as it relates to the evolution of cognition in animals and humans. My work explores autism as a genetic reprioritization of traits that favor the strengths of the animal. In other words, I understand autism as the re-ignition of genes that became dormant throughout evolution. Animality was not simply repressed and dominated in the human genome. It was stored until environmental stressors coaxed out its usefulness. These instructions – ignited in those on the autism spectrum – influence social and neurological traits that benefit human and animal society. My video piece, "Do Animals have Autism?" esteems the shared processing/neurological traits of animals and people on the autism spectrum, and understands these traits as necessary for species survival. These traits include behaviors such as scanning, stereotyped movements, variables in social traits, and nonverbal communication. Ultimately, my work wonders if humans were the animal kingdom's unwitting experiment – a vehicle for the survival of the fittest genes and a pathway to the posthuman/neoanimal.

Session 1 (D)
Gaming Structure
Chair: Hannah Zdansky, University of Notre Dame

Irene Chien, University of California at Berkeley
Playing with Sand: Games and the Techno-Primitive Desert
Most contemporary videogames imagine the desert as a barren landscape for warfare. A game that challenges this paradigm is thatgamecompany's Journey (2012) for the Sony Playstation 3. A meditative game in which a nameless character slowly explores a vast landscape of sand dunes and ancient ruins, Journey has been widely acclaimed for its unusually non-goal-oriented gameplay and transcendent beauty. Thatgamecompany's self-stated mission is to create video games that explore emotions such as joy, wonder, tenderness, and melancholy—emotions that remain untapped by most commercial video games. A key strategy in thatgamecompany's project is erasing the representation of technology from the in-game world, and instead presenting a pre-modern world in which humanity is rendered a small speck in the vastness of the "natural" environment. Rather than using technological implements like armor, guns, vehicles that penetrate, map, and destroy the built environment as in standard war games, the

player in Journey floats through the world devoid of technological aids. The PS3's substantial processing power is marshaled to create an ancient, pre-technological landscape in which the rippling of sand, wind, and fabric are lovingly rendered. Journey attempts an antidote to the violence and destruction of modern warfare, particularly U.S. military operations in the Middle East, as figured in contemporary war gaming. Yet by evoking the Middle East through the desert trope as a locus of mystical enchantment and spiritual renewal that counters the exhaustions of modernity, the game enacts a fantasy of the Orient as a primitive other to modern technology.

Michael Black, University of Illinois at Urgana-Champaign
Shut Out By Copyright: Methodological Problems (and Possible Solutions) in the Cultural History of Software
Recently, Software and Game Studies have begun to closely read algorithmic processes, yet these approaches rely on access to source code and other technical information. For video games, this information is accessible through modification tools; however, most commercial algorithms are not directly accessible due to a combination of intellectual property protections and the technical occlusion of source code. This problem is similar to that faced by scholars of twentieth century culture in the digital humanities. Shut out by copyright from applying new distant reading technologies to their field of interest, some have moved to earlier periods while others have declared that copyright has doomed the digital humanities from ever delivering on its promises. Fortunately for software studies, there is a parallel discourse that now participates in commercial ecosystems. Studying open source software can expose the discursive history of programming in ways that constraints on commercial software prevent; however, a problem of scale still remains. Because the code-base of modern applications is as big as a dozen (or dozens of) novels, close studies of algorithms are often performed on smaller software objects with limited popular circulation, a trend that Johanna Drucker has called "the problem of novelty." This presentation addresses both of the problem of copyright and scale with a pilot study that uses text-mining to map the conceptual evolution of Mozilla Firefox over 60 versions (~30,000,000 tokens). In doing so, this project also seeks to contribute to the sort meta-critical mode of design advocated for by many of DH's critics.

Kevin LaGrandeur, New York Institute of Technology
Magical Code and Coded Magic: The Persistence of Occult Ideas in Modern Gaming and Computing
My presentation will examine the correspondences between the magical codes of the Renaissance wizard and the virtual "magic" produced by the coding of modern computer wizards, who use the information inherent in symbolic, programming language—their own form of incantations—to program systems that embody impressive aspects of human cognitive capabilities and, often, formidable physical power. Coding is the primary tool of modern scientists and gamers who try to make digital artifacts, and coded incantations that derive from occult knowledge are the first methods that Renaissance scientists resorted to when trying to create and control their artificial servants and intelligent artifacts. This coded correspondence between words and reality goes beyond metaphor in the realm of artificial servants and artifacts in both the modern and early modern periods. In the case of the sixteenth century legends of the golem, for instance, the Cabalistic combinations of the Hebrew alphabet and the various secret names of God that its creator chanted literally made flesh out of earth. In the modern world, the

special codes comprised of algorithmic combinations of words, numbers, and symbols that today's computer specialists type into their machines actually weave together the fabric of virtual worlds and creatures like bots and, in some modern systems theory and in the world of science fiction, have the potential to create full-fledged human simulacra, such as the robots in Asimov's I, Robot, and the avatars in online games.

Session 1 (E)
Being Postnatural
Chair: Robinson Murphy, University of Notre Dame

Ashley Winstead, Southern Methodist University
Prosopopoeia, Neoliberal Subjects, and 'The Nature of Things' in Bruno Latour's *Aramis, or the Love of Technology*
What kinds of lingering commitments to "the nature of things," to borrow Bruno Latour's term, continue to underwrite and influence ostensibly postnatural projects? In his oft-neglected 1993 "scientifiction" *Aramis, or the Love of Technology*, Latour voices the failed train project Aramis in order to collapse the boundaries between human/object and nature/culture. However, a careful reading of Latour's prosopopoeic rendering of object subjectivity and agency reveals his text's abiding commitment to different kinds of "states of nature": the natural state of subjects in relationship to the market, the natural environment most conducive to scientific progress, and most importantly, the natural capacities and obligations which qualify a rights-bearing subject in a modern democratic state. In *Aramis*, Latour attempts to expand our notions of reality and the human/object relationship while remaining committed to a politically and economically-charged version of "the nature of things." My essay will argue that in so doing, Latour illustrates the aporia posthumanist projects face when trying to marry expanded definitions of agency with modern democratic visions of the rights-bearing subject. Latour's inability to forgo assumptions about what constitutes a "natural" subject in a "natural" world suggests not only several key failures in the structure of contemporary Western democracies, but also the difficulties of becoming truly postnatural.

Jenell Johnson, University of Wisconsin at Madison
The Lost Legacy of Van Potter and the Promise of a Posthuman Bioethics
In 1970, research oncologist Van Rensselaer Potter coined the term "bioethics." Remarkably, Potter's lexical contribution has been overlooked in the field he inaugurated, and his vision for that field has been almost completely ignored. Closely attuned to the carcinogenic effects of environmental toxins, Potter envisioned bioethics as a discipline that would explore the relationship between the health of humans and the health of the material world. Bioethics was to be global in scope and transdisciplinary in method, an ideal bridge between the "two cultures" that demanded active political engagement with social issues such as poverty (Potter 1970). In the intervening years, however, bioethics has become the antithesis of what Potter had imagined: myopically limited to medicine, disengaged, and even marshaled as PR gloss for corporate interest (e.g. Brody et al. 2002; Elliot 2010). What does Potter's vision offer us in the 21st century? What might bioethics look like in a world in which bios is extended beyond human life

and perhaps even life itself? What does a posthuman and even a postvital (Doyle 1997), bioethics look like? This paper seeks to recuperate the legacy of Van Potter by articulating his initial vision of bioethics and then by critiquing his definition of sustainability as human survival. Ultimately, I argue that recovering and then building upon Potter's vision not only broadens the scope of bioethics but also allows us to imagine a future for biomedicine in which the human body is considered as an element of a broader material environment.

Micha Kilburn, University of Notre Dame, & *Samantha Noll*, Michigan State University
Are we Postnatural?: Insights from Physics and Philosophy
What does it mean to be post-natural? It could mean "coming after nature" or the term could encompass artificially constructed organisms, such those produced through genetic engineering. It could also mean "culture," if we accept a divide between nature and culture or it could mean "mind" if we accept the division of mind and body. However one could argue that we never truly move away from the natural. In this presentation, Dr. Micha Kilburn explores the concept of post-natural from a physics perspective, arguing that everything is made from natural components and every process that transforms those natural components obeys the laws of physics. Thus references to post-natural or un-natural assume either the culture/nature divide. Similarly, Samantha Noll discusses postnatural from a philosophical perspective, arguing that while a large amount of historical effort has been spent on cultivating the conception that humans are separate from nature and non-human others, recently philosophers have been seeking a naturalized conception of ethics, or what it means to do right action, as we move away from mind/body and culture/nature dualism. Thus even the ethical or the "ideal" can be understood as the natural.

Session 1 (F)
Water & the City
Chair: Jessica Hughes, Notre Dame

Christine Skolnik, DePaul University
Imagined Eco-Futures: Restoring the Current
This paper applies recent findings in neuroscience to questions of causality and aesthetics within the context of landscape simulations and with references to Morton's Realist Magic. The paper begins with a brief discussion of the neuroscience of imagining the future, focusing on the importance of the self and the idea of the psyche as an autopoietic system. While we may not be able to move individuals beyond self interest, we can more effectively link ecological concerns to identity and core values. The Los Angles River Revitalization Master Plan (LARRMP) serves as a case study of imaging the future, and the presentation will include many images from the plan. The revitalized river simulations illustrate how aesthetic images reinforce arguments about causality. The LARRMP also shows the co-existence of two concurrent sets of causal arguments: 1) about urban development and 2) about ecological resources. The co-existence of two distinct value systems and lines of argument render the simulations postnatural. Indeed urban development is the condition of the possibility for the emergence in consciousness of concepts

such as climate change and biodiversity. Finally I consider the L. A. River Plan as a post-apocalyptic vision. The river was vanished, but no one seemed to notice. This is an example of the ecological concepts of "generational amnesia" and "extinction of experience." As urban development is naturalized, and severe environmental degradation becomes the new norm, it seems we may fail to recognize the tokens of an environmental apocalypse . . . now.

Michael Bryson, Roosevelt University
Water and the Postnatural City: Reversals, Invasions, and Prospects for Sustainability
It is hard to think of a natural substance more vital than water. Yet, "the natural" is difficult to locate amidst the bewildering complex of intakes, filters, screens, pumps, chemical treatment chambers, distribution mains, pipes of all sizes, gutters, storm drains, sinks, sewers, settling tanks, combined sewage overflows, canals, locks, oxygenating waterfalls, electric fish barriers, and myriad other technological accouterments that allow us to convey, control, imbibe, and dispense with freshwater/wastewater in our cities and suburbs. Despite the utter domination of water's movement by what environmental engineers call the "hard path" of water resource management, however, the capacity of even highly degraded urban river corridors to support surprising levels of biodiversity -- not to mention the tendency of urbanized landscapes to flood -- demonstrates that Nature in the form of wild (read: violent) water frequently reasserts its power over us. This presentation takes a deep dive into the aptly named Chicago Area Waterway System to ask: What does it mean for an urban river to be "postnatural," and why has it been such for so many decades? How does a river suffer from being dredged, straightened, polluted, reversed, flushed, rerouted, industrialized, and biologically invaded since the mid-19th century and then become a locus of urban sustainability and ecological restoration in the 21st century? Finally, what might the salient tropes of various Water and the City narratives teach us about our capacity to explore and apprehend an urbanized but still wild (read: unpredictable) nature in a postnatural age?

Peter Hobbs, York University
What Does Lead Do?: Toxic Entanglements, Exposures, and Cosmo-Chemo-Politics
What does lead do? How does it pose a threat and shape the history and geography of a city? How does it get under our skin and transform our bodies? This paper is an exercise in storytelling, one in which I repeat the refrain "What does lead do?" as a way to foreground the troubling idea that not all of the inhabitants who make up a city and affect its composition are human or even alive in the traditional sense. In this respect, I am guided by Stengers, Latour, and Haraway – three notorious storytellers who stress messy entanglements, slowing down, and becoming lost in the details of material and cultural specificity, as important tactics in delineating the radical promise of cosmopolitics. It is in this adventurous spirit of exposing ourselves to the messiness of life, and how this directly relates to exposing ourselves to toxins, that I offer this history of lead in Toronto. My goal is to present lead as an animating force that has already made its way into our lungs, bones, blood, and brains, as well as our imagination. Lead, in other words, does not need to be animated or anthropomorphized, as it already has active properties that influence life in both subtle and abrupt ways. This paper maps the cosmopolitical life of lead, how it has reconfigured daily existence so that its presence in our air, water, soil, and in our bodies, has become second nature, an avoidable condition or attribute of our being chemo-modern.

Session 1 (G)
Dwelling with Collapse
Chair: Chris Abram, University of Notre Dame

Joshua Schuster, University of Western Ontario
Structure and Genesis: Scale and Collapse
Derrida's early essay on Husserl argues that structure and genesis are co-constituting background for any phenomenology. What Derrida sees is productive, flourishing, sensitive ontology where phenomena create the conditions for other phenoma. Yet what if production and genesis stop? How can philosophy think collapse at varying scales? Is collapse as much as genesis the philosophy of a post-natural world? This essay discusses recent philosophical contributions to thinking collapse from Meillasoux and Zizek, in combination with other discourses of becoming undone that range from aesthetics to ecology to anthropology to economics and mathematics of catastrophe theory. I focus on two ecological situations: biodiversity collapse and the melting and calving of glaciers. The study of ecological collapse is often stated as a series of catastrophes but also follows from norms and regular, recurrent systems. Post-natural ecology is both genesis and collapse, although much of the ecological discourse posits an ethical, normative role for genesis but a nefarious, voyeuristic, or nihilistic role for collapse. Yet collapse and genesis presuppose each other just as noise and signal do. Aside from this ethical standard, what kind of philosophy and aesthetic frameworks are helpful in studying collapse; what kind of thought and imagination is at work in conceptualizing the undoing of things?

Michael Hessel-Mial
End of Metaphysics, End of Nature: Heidegger's Critique of Cybernetics
The post-war emergence of cybernetics as a scientific and cultural force did not escape the notice of major thinkers in the continental tradition. Representing both a completion of Western metaphysics and a toolbox for new strategies of thought and action, cybernetics becomes the horizon and figure underlying many post-structuralist reformulations of philosophy. But it is in the later writings of Martin Heidegger that cybernetics first takes on this role, becoming an emblem for the dangers of technology, dangers whose effects are fundamentally ecological in nature. In my paper, I will provide an overview for why cybernetics is central to Heidegger's critique of technology, and why it presents a key problem for thinking ecology. In Heidegger's prophetic conception of the history of being, cybernetics occupies a paradoxical 'both/and' role, representing both the beginning and end of philosophy, a potentially fatal technologization of the natural world and the conditions for its renewal. Key to my discussion will be the figure of the circle, as it appears in the feedback loop and Heidegger's hermeneutic phenomenology. Paradoxically, Heidegger turns away from the circle the more he identifies it with the technological positioning of nature as the "standing reserve," while the later cyberneticians draw upon this very principle as a model of environmental relationality. Rather than attempting to resolve the tension or 'pick a side,' I will suggest that it is the very problem that makes cybernetics, echoing Heidegger echoing Friedrich Hölderlin, "the most dangerous of goods" and "the most innocent of professions." I will conclude by arguing for cybernetics as that very

turning point, complex and double, for scientific and technical epistemology that can begin to address the vast problem of what ecological thought and praxis can look like, and why Heidegger may not lurk too far behind.

Eric Coleman, Loyola Marymount University
"Sustainability" in what state?: Green Sovereignty and the Production of Bare Life
Giorgio Agamben's striking analysis (Homo Sacer, 1995; State of Exception, 2005) of the sovereign's ability to assert itself via declarations of states of exception concludes that the bio-political norm today is bare life, or human life reduced to a binary between alive and dead to be accounted for actuarially. That is, the sovereign's duty has become to "sustain" life as a camp might "sustain" its prisoners', while allowing them to be brought ever nearer death. Concurrently, some see an alternative to humanist politics in "Green Sovereignty" (Eckersley, 2004), wherein the state conceives itself not as a guarantor of rights and steward of its people but of the earth. This paper argues that Green Sovereignty presents an even greater danger to our planet than traditional sovereignty, as its goal of creating an ecologically "sustainable" state extends the bio-political norm of bare life to the life of our planet itself. "Sustainability" is thus seen as the preservation of the bare minimum of life on earth necessary for business-as-usual to continue. The sovereign functions here to create and govern territories through an ecothanatopolitic that simultaneously preserves the life of the earth while tacitly permitting it to be killed. In times of 'crisis' the earth itself is organized into "camps", its life to be sustained as long as possible through 'moratoriums', but forbidden from flourishing creatively. Whereas Smith (2011) emphasizes Heidegger's humanistic notions of 'enframing' and 'standing-reserve' in Agamben, this paper explores the sovereign's territorialization of the creative meshwork of the earth.

Session 1 (H)
Open. No Panel.

Session 1 (I)
Send in the Clones
Chair: Peter Holland, University of Notre Dame

Jennifer Neely, University of Arizona
Jones' *Moon* and Ishiguro's *Never Let Me Go*: Clone Narratives
The topic of cloning has been widely discussed among scholars in numerous fields, from the intersection of science and literature and the ethical implications to the philosophical questions raised by the increased attention cloning has received throughout literature. Utilizing Catherine Waldby's and Robert Mitchell's discussion of the human body as "product" in *Tissue Economies* I will discuss how Duncan Jones' 2009 film *Moon* and Kazuo Ishiguro's 2005 novel *Never Let Me Go* use narrative technique and perspective to situate the reader/viewer in a space that signals a shift in literary approaches to the idea of human cloning, and that this shift can be directly related to current discussions regarding science and the ethics of "tissue

economies." I argue that both Jones' film and Ishiguro's novel, by presenting clone protagonists with unique perspectives (the 'multiple' Sams and Kathy H.'s child-like narration, respectively), offer the reader/viewer little room to negotiate their own relationship to clones/cloning, and in doing so also work to complicate the question of what it means to be human, instead favoring the question of personal identity. As both texts deal with clones in relation to their value, either as labor or commodity, a connection to Waldby's and Mitchell's argument can shed interesting new light on how we negotiate the value of "bodies" when the focus resides not on the natural versus the unnatural (or the human versus the clone), but rather on the subject as a thinking and self-realized being.

Hyaesin Yoon, University of California at Berkeley
The Biopolitics of Memory in Transnational Pet Cloning
In South Korea, a "wannabe" international biotechnology powerhouse, an industry that seems like science fiction has emerged: dog cloning, a service provided largely for grieving owners of dead pets in the US. My essay examines how this post/natural method of carrying the memories of a beloved pet via other living creatures (the clones) refigures the biopolitics of mourning in an age of genetic reproduction. Cloning often invokes apocalyptic visions of the inability to mourn, in both pop-culture films and philosophical writings. Such visions echo the platonic suspicion of technically-exteriorized memories, which resonates in contemporary critiques of the mass-production of clones susceptible to control, erasure, and replacement. However, such critiques often perform nostalgic naturalization of the liberal human subject, fantastically threatened by genetic technology. Instead, mobilizing theories of biomedia and feminist new-materialisms, my essay asks how the technology of cloning –which displaces memories outside the subject "I" and diffuses them into other bodies– urges us to rethink the politics of memory accountable for the porous boundaries between the self and the others. Pet cloning regenerates memories of the deceased dogs not only by interweaving the discourse of genetic identity with the lived relationships among humans and animals, but also by rendering other bodies (surrogate-mother-dogs and clones with defects) disposable by intersecting the differences across species, sex, nations, and cultural-economic values. The post/natural biopolitics of memories envisions bodies that are not so much containers of memories (and genetic data) as they are prosthetic interfaces, where collective memories are composed through encounters with other bodies.

Session 1 (J)
Liminal Lives
Chair: Dallin Lewis, Notre Dame

Christopher Clason, Oakland University
Hoffmann's Tales and Novels: Roots of the German Posthuman
Over the past several decades, E. T. A. Hoffmann's prose works have been gaining ever more recognition for their "modernity," in the sense that they forecast developments in numerous fields (such as psychology, medicine, music, etc.), engage thematically with numerous issues that confront more recent readerships, and appeal strongly to current audiences, far more than to Hoffmann's contemporaries. As a Romantic storyteller of the urban environment, who

represented the strange, grotesque, and amazing in a realistic manner, Hoffmann creates a fictional world that seems uncannily familiar to us in the twenty-first century and at the same time challenges us to consider the human situation in new and uncomfortable ways. In this paper I would like to show how Hoffmann's characters, situations and landscapes predict many of the concepts and concerns informing postmodern, specifically posthuman ideologies, especially through his confronting post-Enlightenment, anthropocentric perspectives on human relations to the bios and to the machine. Hoffmann's concept of the relationship between human and the external world achieves expression for perhaps the first time in his 1814 essay, "Jacques Callot," the introduction to his collection of Fantasy Pieces in Callots Manner, wherein he describes the French graphic artist's genius in synthesizing human and animal characteristics in his work. Out of this comes a tripartite view of humans in the world, intimately connected to other species and to various mechanisms, which he explores in many of his subsequent works, culminating in his final novel, Life and Opinions of the Tomcat Murr.

Andrew Logemann, Gordon College
Anarchic Disability: Metaphor and Narrative Agency in Conrad's The Secret Agent
The Secret Agent (1907), Joseph Conrad's only novel situated at "the very centre of the Empire on which the sun never sets," presents a London in which disability – physical, emotional, cognitive – troubles imperial narratives of normalcy and power. This paper contextualizes Conrad's novel within the discourses of eugenics and abnormal psychology that permeated England during the opening decades of the twentieth century, arguing that The Secret Agent's intervention open up a narrative space for agency among those devalued by eugenic understandings of ability and subjectivity, anticipating more recent theorizations. Indeed, as Leonard J. Davis argues in Bending Over Backwards: Disability, Dismodernism and Other Difficult Positions (2002), notions of human subjects "as whole, complete, perfect, self-sustaining" are "partial and error-laden," in need of a "new ethics of the body" that begins "with disability rather than end[ing] with it." Davis terms this new theorization of the body "dismodernism," a concept that accords well with Conrad's narrative reinscription of the subject. It is productive, therefore, to situate Conrad's work within contemporary theorizations of disability, allowing it to circulate in these textual fields, tracking the development of an aesthetic whose explicit function is to circumvent the normative expression of human subjectivity and facilitate novel understandings of the human. In this novel, Conrad instantiates an aesthetic of anarchic dismodernism that suggests a productive new understanding of modernism's engagement with disability.

Ajitpaul Mangat, SUNY-Buffalo
"Only human beings?": Radicalizing *what lives* in Virginia Woolf's *Mrs. Dalloway*
Right before Septimus Warren Smith flings himself violently down on to Mrs. Filmer's railings in Virginia Woolf's 1925 novel *Mrs. Dalloway*, he asks himself, "Only human beings?" With this final pronouncement – *Only* human beings – Septimus diagnoses modern human relations as having become by definition relations among only human subjects with any attempt to include the inanimate, plant life, and animals understood as highly suspect. Clarissa Dalloway exemplifies such social relations, in her instrumentalization of Septimus after his death and anthropocentric relations to nature. Septimus, by contrast, finds vitality in all matter. When Septimus thinks, "they beckoned; leaves were alive; trees were alive," he radicalizes *what lives*.

In this way, the central symbolic relationship in Woolf's novel pivots on the contrast between Clarissa's normative social agency, whose ecumenism finds its limit in the human world, and Septimus' non-normative social agency, whose expansiveness is typically read as eccentricity or deficiency. When Dr. Holmes diagnoses Septimus as failing to "take an interest in things outside himself," I argue, we should understand that Septimus, far from lacking interest, relates to the world through a *different* set of interests, in that, he invests himself in a wide-range of objects, granting human beings no ontological priority. This paper, then, puts Woolf's novel in dialogue with the contemporary "turn to ethics" that challenges the limits of humanism by wrenching social relations apart from a "human" grid that fails to account for the *amongstness*, even *entanglement* of the "human" in all that it is not.

Session 1 (K)
Deep Time
Chair: Meagan Simpson, Notre Dame

Raymond Person, Ohio Northern University
The Eschatology of Deuteronomy as Understood in Its Ancient Environment and Reinterpreted for a Post-Natural World
The eschatological vision of Deuteronomy is one in which all members of the family household are "blessed," including not only humans but also the plants and livestock—for example, "Blessed shall be the fruit of your womb, the fruit of your ground, and the fruit of your livestock, both the increase of your cattle and the issue of your flock" (Deut 28.4). This paper explores this eschatology (1) by describing the ecology of the agrarian family household in ancient Israel as reconstructed by archaeology and comparative anthropology and (2) by retrieving helpful insights from the traditional subsistence strategies of these households, but then also (3) critiquing the anthropocentric limitations of this utopia (4) to suggest how a ecocentric reinterpretation may be helpful for us to imagine our eco-future in a post-natural world. This paper draws from my forthcoming Deuteronomy commentary in the Earth Bible Commentary series published by Sheffield Phoenix Press. The series approaches the Bible from a multidisciplinary perspective with a three-fold hermeneutical process, analogous to feminist and post-colonial hermeneutics: (1) suspicion of the anthropocentric bias of the text and/or its interpretations, (2) identification with the non-human members of the Earth community, and (3) retrieval of the suppressed voices of these non-human beings. Thus, this paper will illustrate the approach being applied to the entire Christian Bible in the larger project of the series.

Steven LeMieux, University of Texas at Austin
Host Earth: Rhetorics of Parasitism and Autoimmunity
Two and a half to three and a half billion years ago an oxygen producing organism, Cyanobacteria, emerged on the planet. Earth had, until this point, been largely bereft of oxygen, and its eventual accumulation was utterly catastrophic. In this project I will be taking up this early example of global climate change as a touchstone for questioning the complex relationships between the Earth and the organisms it hosts. By taking up both George Kennedy's reformulation of rhetoric as energy of response and Derrida's work on hospitality I resituate the Earth as a space not inhabited by bodies but instead as a body, itself, playing host (and hostage)

to trillions of bodies. Before there is any possible rhetorical interplay between these creatures they are first set in relation to the Earth. In the face of an obviously changing but seemingly uncaring Earth and drawing on the work of Michel Serres I take up these organisms as not proper, invited guests, but instead as parasites that seem only capable of engaging the Earth through rhetorics of interruption. Situated as parasites we can neither be properly expelled nor can we act as the reasonable guest. Incapable of performing a collective, species-wide rational response to climate-change we seem to, like the Cyanobacteria, be unable to halt any global changes that might occur. Our actions, as the intercepted response to change situated first as interruption, operate as autoimmunity; it is our sustainability rather than the Earth's or future creatures' that is in question.

Catherine Rainwater, St. Edward's University
"Maybe Einstein Was Part Yaqui": Space-Time and the Reader in Works by Anita Endrezze and Leslie Marmon Silko
The mixed-blood Yaqui writer, Anita Endrezze creates a "Yaqui revisionist history" that, much like Leslie Marmon Silko's narratives, reaches beyond mere corrective changes to the western dominant record. In Throwing Fire at the Sun, Water at the Moon, Endrezze explains the impact on the universe when "two observers occupy different cultural space, mythically, intellectually, or spiritually, but the same material or physical space." Such initial meetings between Western European invaders and American indigenous people, she contends, distorted the space-time continuum for both. The Western-European, colonial conception of time as linear, progressive, and immutable contrasted profoundly with indigenous understanding of time as cyclical, multi-directional, and malleable. For Native people, Endrezze explains, "Time is not absolute but depends on the direction of the relative motion between two observers making the time measurements." Yaquis believed in time as the fourth dimension. "Maybe Einstein was part Yaqui," Endrezze writes. With his "Yaqui" notion of time, Einstein transformed western science and technology in ways leading to comprehension of sophisticated tribal worldviews, but post-Einsteinian historians have yet to adjust their epistemological spectacles accordingly. Endrezze and Silko present us with works that foster epistemological adjustment. Endrezze's and Silko's narratives afford attentive readers numerous opportunities to reflect upon cultural constructions of history and their basis in preconceptions about time.

Session 2 – Thursday 4:00pm- 5:30pm

Session 2 (A)
Ecological Variations on Narrative Realism
Chair: Brandon Jones
Twentieth and twenty-first century novels reveal the complexity of traditional concepts like "Nature" and "Reality," which post-Enlightenment thinkers have conventionally accepted as universally accessible. As they explore the restrictions of these and related concepts, authors like

Joseph Conrad, Zadie Smith, and Tito Mukhopadhyay generate texts that draw attention to the diversity of narrative realities. The papers in this panel investigate how such authors represent systems of objects, cities, and human bodies as ecological networks, whose connections need not always develop according to models that have been assigned historical privilege. Overall, these papers emphasize the potential of narrative to promote various modes of ecological connectivity.

Claire Barber, University of Illinois at Urbana-Champaign
A Disability Perspective on Literary Realism
Many people treat "reality" as a singular state to which all human beings have access. In this state, they encounter the same sensations, which create a common foundation that facilitates communication. This belief provides the basis for the genre of realism, as theorists like Georg Lukács have defined it. Realism relies on the assumption that some literary styles and techniques are more appropriate for creating a representational image of everyday life than others. Approaching this genre from a perspective informed by disability studies can help us to understand the development of multiple literary realisms that has taken place over the past century. Even if bodies face the same sensations, they may not generate the same image of reality or exhibit the same responses to these stimuli. Literary modernism has been widely acknowledged to diverge from realism, in both its aesthetics and subject matter; however, individuals with autism spectrum disorders have produced literature that exhibits striking similarities to the alternative realisms associated with literary modernism, like magical realism. To explore this relationship, I turn to modernist texts like Hugh MacDiarmid's *A Drunk Man Looks at the Thistle* (1926) and Samuel Beckett's *The Unnamable* (1953), in addition to contemporary texts written by autists, such as Tito Mukhopadhyay's *How Can I Talk if My Lips Don't Move?* (2008) and Daniel Tammet's *Born on a Blue Day* (2007). Texts written by autists highlight the relationship between aesthetics and information processing, and reading them with modernist texts underscores the importance of modernism to a theoretical movement like disability studies.

Brandon Jones, University of Illinois at Urbana-Champaign
Ontography, Metaphor, and Literary Impressionism: Reading the Meanwhile of Being in Joseph Conrad's *The Secret Agent*
Most criticism on impressionist novels analyzes the models of human consciousness that authors employ to render fictional storyworlds to readers. In this paper, however, I argue that Joseph Conrad's *The Secret Agent* (1907) offers an example of an impressionist novel that represents not only how objects in the world present themselves to human minds, but also how objects present themselves to one another. This is made possible by what Conrad critic John Peters identifies as the novel's "limited point of view" style of authorial narration, which functions to "emphasize what the narrator does not know." This style of narration allows Conrad to point to modes of experience unavailable to human observers by using impressionist techniques similar to the methods of *ontography* and *metaphorism* that object-oriented ontologist Ian Bogost outlines in *Alien Phenomenology* (2012). In *The Political Unconscious* (1981), Fredric Jameson calls this unknowable experiential space that Conrad's impressionism carves out the *unfamiliar sensorium*, which is different from the space of actual impressions that the narrator renders to the reader. Rather, the unfamiliar sensorium "suggests senses and forms...as unimaginable to us as the

possession of additional senses, or the presence of nonearthly colors in the spectrum." While critics often interpret this unfamiliar sensorium as insipid human experience, I argue that *The Secret Agent*'s unfamiliar sensorium appears banal, ironic, and, sometimes, even nihilistic to readers because it is not so concerned with human affairs and ideology, but instead places a central focus on the ontology of nonhuman relations.

Shawn Ballard, University of Illinois at Urbana-Champaign
Urban Ecology and Human Networks in Virginia Woolf's *Mrs. Dalloway* and Zadie Smith's *NW*
The ecology of the modern city, arguably the height of man-made social structures, operates in place of natural ecologies. The city is actualized and constituted by its inhabitants. That is, the more intimately realizable the cityscape, the more deeply connected are the interpersonal networks within that cityscape. In Virginia Woolf's *Mrs. Dalloway* and Zadie Smith's *NW*, London itself is the protagonist, steadily revealed and explored as characters navigate the cityscape. Traditional maps are exposed as inadequate and inaccurate in the face of this human/lived cityscape. Physical geography overlaps with mental geography, evolving layers of meaning across time. In *Mrs. Dalloway*, Woolf constructs these layers of meaning through chains of association and spatial memory. In *NW*, Smith explicitly ties remembered spaces to objective mappings, illustrating both the layers of potential meaning for different observers and the unreality of uninhabited London. Mapping both geographic and mnemonic space yields a deeply and intricately connected network—an almost over-determined, over-connected sense of the cityscape—criticized as "hysterical realism" by James Wood. Though it is perhaps exaggerated, Smith and Woolf's "hysterical realism" aligns with studies that show, despite a relatively large number of people with relatively few acquaintances, any two people chosen at random are actually very closely connected to each other. Social connections within the modern city are reasonably modeled as small-world networks, as one would expect from a functioning ecosystem, though the interconnections in the case of *Mrs. Dalloway* and *NW* are social rather than survival relations.

Session 2 (B)
Noise
Chair: Daniel Gilfillan

Aleksandra Hernandez, University of Notre Dame
William Carlos Williams' Poetics of Noise
According to Kittler, the gramophone evokes the illusion of reality better than any other medium "as if voices travelled along the transmitting bones of acoustic self-perception directly from the mouth into the ear's labyrinth." Because it is inherently embodied, the gramophone is privileged over other technological apparatuses by new media theory. It is this obsession with the transmission of sounds—and the background noise!—that bears a strong resemblance with the American avant-garde. But it is also precisely this hierarchic privileging of sound that the study of modern American poetry can powerfully interrupt. In this paper, I focus on Williams' "Spring and All" where he casts language as just as dynamic and autonomous a medium, and just as

"real," as that of the gramophone. Specifically, the poet's treatment of the imagination as an embodied presence reveals the extent to which he predates and radicalizes McLuhan's "the medium is the message." While McLuhan maintains that it is not the content of the medium, but the medium itself that we should pay attention to, Williams problematizes, as Serres puts it, the difference between the signal and the symbol, by making imagination and the forms it enables the content of his poetry, foregrounding its processes, noise, and interruptions. Rather than deploying a poetics that suppresses Serres' "third man," Williams restores to the imagination its latent power, agency, and materiality in the form of a poem, bridging the gap between the human and the nonhuman.

Daniel Gilfillan, Arizona State University
Experiments in Aurality: Sound and the Primordial Function of Language
The intermediality at the core of sound production finds resonance throughout the history and contemporary practices behind the radio as an artistic medium. This intermedial approach to understanding the radio as a form that combines both textual and aural/spatial modes demonstrates the multi-facetted positions the radio occupies in the creation, transmission and reception of a piece to the listener. Sound's ability to capture and convey movement, spatiality, and emotion in very distinct ways works synergistically with the human mind's ability to unify within consciousness any number of perceptual inputs, such that a cognitive picture of the world and one's position within it comes to light. At the core of this presentation will be an exploration of a 1996 sound work for radio by Peter Pessl, German-Austrian author, poet and radio/sound artist, called *Anchored in Trance*. The paper will seek to understand, how, in his adaptation of textual and spatial form for sound and radio broadcast, Pessl utilizes the perceptual mode of sound to engage the poetic realm, to dive beneath its surface, to discover "new, as yet unknown dimensions of language" within the paralinguistic—dimensions that are shaped by the pre- and post-history of human language, and thus also help us think about acoustics and sound as something as decidedly non-human as it is human.

Craig Eley, Pennsylvania State University
Naming Birds without the Gun: Animal Imitation and Early Sound Recordings
One of the narrative threads in American environmental history is that late-nineteenth and early-twentieth century advocates began focusing on elements of "backyard" nature, especially the conservation of birds. This movement resulted in several high profile developments, including the founding of the Audubon Societies and the passage of the Lacey Act. What has long gone unheard in this story, however, is the movement's vibrant soundtrack—provided almost exclusively by whistling bird imitators. Whistling today is generally perceived as an innocuous, if slightly annoying, background task: you whistle while you work. But at the height of its popularity between approximately 1890 and 1940, whistling did a significant amount of cultural work, as the act itself and the people who performed it were at the center of significant changes in how natural sounds were recorded, presented and consumed in the United States. What began as a popular middlebrow entertainment became a legitimate scientific and educational tool, and in the process moved from embodied performances on the stage and lecture circuit to recorded performances in cultural and educational institutions. This presentation connects the history of sound recording technologies and imitative practices like whistling as a way to challenge some of the dominant beliefs about the history of recorded environmental sounds. The fact that the

earliest nature recordings came from human mouths points to the fact that environmental recording practices are *always* imitations, and their meaning is only made within historically specific representational systems. This presentation examines whistling as one such system.

Nicholas Knouf, Wellesley College
Some Micropolitical Potentials in Vocal "Noise" Music
How can we hear the voice in its post-natural form, as simultaneously produced by the larynx and computationally modified? In what ways might this constellation of voice and technology produce micropolitical interventions into the commodification of language? This paper addresses these questions through the performance, compositional, and production practices of Maja Ratkje and Holly Herndon. Taken together, the works I consider stretch over a decade (2002--2012) marked by contradictions in the domains of the voice and sound: the continued evacuation of rational meaning from vocal utterances by politicians and pundits alike; significant shifts in the ways in which music is constructed, shared, and heard; and, in conjunction with the domains of the two musicians under consideration, the widespread development of a vibrant set of ``noise" music practices the world over that have contributed to the development of new listening regimes while also in the best of situations foregrounding the position of women within a long-standing history of experimental sound. Moving from this level of generalization, I will listen closely to the works of Ratkje and Herndon in order to highlight the dynamics of their temporal unfolding, the ways in which they produce their own interferences in how we hear the voice beyond rational signification, beyond the gendered representative of genred dance music, beyond the discursive conveyor of truth. Rather, I consider how the post-natural vocal practices heard in the works of Ratkje and Herndon offer a micropolitical opening into a regime of signs that attempts to commodify all vocal utterances.

Session 2 (C)
Coalesce (Roundtable)
At once thought to be distinctly anomalous philosophies, science and art are aggressively challenging their peripheries, steadily becoming inherently linked. Cognitive developments on both fronts are bridging a gap of understanding in how to approach thesis resolution. The question arises as to how best employ these two distinct, yet inter-changeable platforms of exploration as the world catapults towards eco-failure. The papers in this round-table format panel will discuss the malleable state of the threshold between scientific methodology and material art practice. Leon examines the necessity of historical processes surrounding raw materials, and the biological and ecological ramifications of industrialization. Focusing on alternative commodity systems centered on wool harvesting in isolated and nomadic regions, a direct link is portrayed between the use of raw animal fibers, and the health and welfare of the land and its citizens. Donaldson explores the relational aspects of fungi as both the last phase of decay and the first phase of regrowth, and how this manifests in industrial and urban abandonment. Ethnolichenology is the focus of her structural and architectural research, as she attempts to discern and portray post-humanism in the urban landscape. Garcia distinguishes how intersections of public pedagogy and socially engaged art practice activate concepts of sustainability in the public domain. Centered in ecologically distressed regions of the American

southwest, the 1000 cactus project attempts to reacquaints communities with indigenous knowledge systems and food practice through the distribution and proliferation of native desert cacti in informal urban space. Miller collaborates with engineers to study the historic failure that produced the endorheic Salton Sea and the failed attempt to desalinate the sea by the Department of the Interior in 2005. Based on the relationship between the sea's only inflow of agricultural wastewater to the numerous bird species that have relocated to the Salton Sea's wetlands, a respondent sculpture functions *in situ* to desalinate water through a solar powered water transportation system. The project monumentalizes the conflict between human consumption and vital habitats but also takes up the role of remediation in the process.

Ingrid Donaldson, Arizona State University
Presentation

Matthew Garcia, Kansas State University
Presentation

Aimee León, Arizona State University
Presentation

Dominic Paul Miller, University of California at San Diego
Presentation

Session 2 (D)
Growing the Postnatural
Chair: John Sitter, University of Notre Dame

Micheline Nilsen, Indiana University at South Bend
Allotment Gardening Today: Return to Nature or Post-natural Self-positioning?
With antecedents dating back to the Middle Ages, the small garden movement gained impetus in Europe during the late nineteenth century as rural laborers crowded into industrial cities. Early allotment gardening was inscribed within national social contexts: from poor relief in Britain, Catholic conservative strategy in France, to healthful outdoor activity in Germany, the gardens provided food and escape from crowded urban conditions. Both World Wars and the depression of the 1930s caused an increase in allotment gardening. After several decades of decline in the post-World War II years, allotment gardening is again experiencing significant growth in Europe. Driven by ecological sensibility, adoption of sustainable practices and concern for the health impact of industrial food production, small-scale urban agriculture now accounts for a significant portion of horticultural leisure activities. Allotments, front yard, terrace, or wall gardens provide a venue for regaining lost botanical knowledge, and for individual agency in the eternal quest to recreate the Garden of Eden. Although economically unjustifiable as a large-scale food supply strategy, small-scale gardening provides more than produce untainted by agro-business. The deliberate adoption of kitchen gardening, which was integral to the way of life of

earlier generations, constitutes a self-positioning lifestyle choice. Prompted by educated awareness of ecological and social concerns, today's small scale vegetable gardener makes a deliberate commitment to acquire and deploy horticultural know-how. Whether the garden is enjoyed as visual or gastronomical aesthetics, enlisted to educate, or used to foster social integration, it becomes a peaceful polemical terrain for civic engagement.

Nancy Barta-Smith, Slippery Rock University
A River Runs through What? Wendell Berry Has Never Been Postnatural
We think of time as a river and life as a journey. Wendell Berry himself lives and writes along the Kentucky River. But in his 2012 Jefferson Lecture in the Humanities, quoting *Howard's End*, he notes "Because a thing is going strong now it need not go strong for ever, ... It may be followed by a civilization that won't be a movement, because it will rest upon the earth." This paper will examine this attention to permanence in the face of time and mortality in Berry's work, with particular reference to *A Place on Earth* and <="" em="">. We are tempted to see the world ever passing and ourselves constantly leaving where we are behind as if surpassed. The term "postnatural" too suffers this fault. Hence, when confronted with the prospect of global climate change, melting, alpine ice in retreat, oceans rising, island nations disappearing, species vectors shifting, tropical diseases moving north, we have been tempted to see ourselves as having so intervened in nature as to question the category itself and to call ourselves both "post human" and "postnatural." However, the remedy to the effects of our exploitation of the planet, for Berry, lies in conceiving nature perceptually and imaginatively not metaphysically and in the role of affection and care in restoring our home.

Sam Smiley, AstroDime Transit Authority
Weeds as boundary objects: virtuous and undiscovered, interfering, or out of place?
What is a weed? Ralph Waldo Emerson described a weed as a "plant whose virtues have not yet been discovered." 19th century botanist Asay Gray wrote "Even the most useful plants may become weeds if they appear out of their proper place." In W.S Blatchley's "The Indiana Weed Book", he wrote "Many weeds, like misery, love company." Using Susan Leigh Star's theory of boundary objects, this presentation will analyze the multiple definitions of weeds by humans. It will also give a historical overview of the representations and descriptions of weeds within a Western scientific context. Portions of this presentation will include a visual analysis of interviews conducted with the Weed Science Society of America (WSSA) in which participants were asked: What is a weed?

Session 2 (E)
Other Texts, Other Bodies, Other Worlds: Creation as Denaturation?
Chair: *Arnaud Regnauld*

Far from seeing progress and evolution as keys to the achievement of some teleological or eschatological form of humanity, both panels address the question of the "postnatural" as what marks a radical break from the mythical construct called "nature," which human history has constantly deferred as the outer limits of its realm. "Technology" and "nature" have always

already informed each other in a feedback loop which now operates on a global level and folds the plurality of worlds into a common technical ecology or *ecotechnics* where everything is always more interrelated: natural disasters affect ever larger numbers of beings pressed together in rapidly shrinking areas while technological accidents destroy entire ecosystems. What has changed is the scale on which such categories as the animal, the vegetal, or the divine have been undermined and expropriated by the pervasive and exponential intervention of a leveling and delocalizing technoscientific process. In this context of "generalized environment" which witnesses the collapse of boundaries, we may claim with Jean-Luc Nancy that "it is necessary to come to appreciate 'technology' as the infinite of art that supplements a nature that never took place and will never take place. An ecology properly understood can be nothing other than a technology." How can literature as *techne* touch upon and redraw the elusive confines of an abject *un-world*, literally thrown outside of itself and spilling over without end? How does literature embrace the non-naturalness of the world, given that writing as technology partakes in the denaturing process of history?

Pierre Cassou-Nogues, Université Paris 8
Knife in hand. The image of science in Norbert Wiener's (unpublished) fiction.
In his published essays, but even more so in his drafts and unpublished fiction, Wiener often stresses the ambiguity of both science and nature. The application of science to existing problems seems to entail even greater problems, which science must then tackle. The various disasters which we may fear arise from the fact that science and nature are caught in a positive feedback:"Every progress in the content of science forces us, not only to run very fast to understand it and to apply it, but twice as fast in order to adjust ourselves to the very great changes it makes in our environment. The depletion of our natural resources, the population problem, the atomic bomb, automatization and the like have already made us run very fast, but we shall have to run twice as fast in order to catch up with the consequences of our own very fast running" (*God and Golem, Inc.*, draft). There is no question of returning to a primordial nature nor of interrupting the development of science, even though problems may arise from scientific development. In several of Wiener's unpublished stories, scientific activity is depicted as a cut into a foreign body, out of curiosity, cruelty or for the dubious benefit of the patient. Numerous examples illustrate science's status, but also that of an emerging posthumanity. As Wiener puts it, "the spirit in which [this essay] is to be undertaken is that of the operating room, not of the ceremonial feast of weeping about a corpse."

Brigitte Felix, Université Paris 8
"I'll devastate/I'll destroy the world": the "postnarrative" poetics of M.Z.
Danielewski's *Only Revolutions*
Like House of Leaves (2000) and *The Fifty Year Sword* (2005), Mark Z. Danielewski's third novel, *Only Revolutions* (2006) is another typographical fiction that foregrounds its existence as a book, where "the virtual reality of fiction is eclipsed by the material reality of the book, and the story world rejoins the real world in which books exists as objects in a version of a strange loop". They are books that have been "made possible by digital technologies of inscription" (Hayles). With *Only Revolutions*, the "loop" embodies the main constraint that generates the text –a complex, multimodal circularity– and suggests the reading "gesture" that includes the physical

manipulation of the book. The double and incompatible chronotopes (one for each of the two narrators) on each page have to be read with —or against?— the historical timelines running in the inner margins, which further "de-frames" the fictional landmarks in the reading process. Just as books have always been technical objects, and reading has never been a natural operation, the specific recursiveness of reading embedded in the highly constrained form of *Only Revolutions* seems to be linked to a "denaturing" of the narrative process, paralleled in the novel's chronicle of an ecocatastrophe leading to the progressive –and somehow narrativized– extinction of the natural environment. This paper will explore how the questioning of narrativity (fictional as well as historical) in the poetic texture and material composition of *Only Revolutions*, might be a response to –an illustration, or a contestation of– our supposedly "postnatural condition."

Gwen Le Cor, Université Paris 8
"Even/the ticking earth must thaw:" breeding chimeras in *True North* and *slippinglimpse* by Stephanie Strickland
Starting from Stephanie Strickland's assertion that reading is a form of transversion, this paper seeks to explore how *True North* and *slippinglimpse* breed chimeras. My focus is first on the noise generated by "the ticking earth," that is, on the disturbances produced by recombining and reshuffling technology and nature. In full screen mode *slippinglimpse* unveils what seems to be handwritten words, floating over a video of moving water, where as the authors state: "water reads text, text reads technology, technology reads water, coming full circle." Since "text in the initial full-screen mode may be unreadable," my intent is to examine how this *unreadable* water-text chimera creates a turbulence which is asking us to "finally [learn] to see/beyond the retinal/experience." What is there beyond the retinal experience, a waterpoem chimera? A post-natural "form" ? A new texture? "in only a few-in five-/iterations, it already reads as texture," the poem concludes on the word "Repeat: " asking us to iterate our reading so as to grasp the fractal details. Yet, in a way akin to the Butterfly Effect, reading as iteration, transforms the very structure of what we read, and breeds chimeras. In a poem entitled "Time-capsule content" the poetic voice wanders on the limits of the world and wonders,"What will be left?" "Weather, certainly. Even/the ticking earth must thaw." Likewise the aim of this paper is to stroll along the "ticking earth," to examine how Strickland disrupts categories to "give rise to unspoken but experienced spaces of various transversions."

Arnaud Regnauld, Université Paris 8 Vincennes Saint-Denis
The War Against Time: Dying Bit by Bit in the New Media Ecology *Filmtext 2.0* (2002) by Mark Amerika.
Mark Amerika's recourse to digital technologies in *Filmtext 2.0* questions the existence of a "there there," outside of the "unnatural" coupling of mind and machine. Audio and video signals no longer bear an analogical relationship to an external reality whose spectral presence one could still touch upon, even tangentially so, in the form of a chemical imprint. The endless recycling of the same images reminiscent of videogame aesthetics and experimental cinema doubled with the reiteration of an augmented, postnatural environment, that of a desert background ironically modulated after Baudrillard as "the desert of the real," offers a non-narrative visual experience in "digital thoughtography" — an experience devoid of any chronological progress, possibly thwarting the elaboration of a subjectivized image on overwhelming visual perceptions.

Machinic processes are meant to "translate your experience as you experience it" in an endless feedback loop questioning the existence of an independent, external referent as well as the very subjectivity of the cyborgian viewer. The perpetual present of digital signals undermines the memorializing power of photography, confronting users with the incompatibility of human temporality with ever faster machinic processes: the environment in which machinic flows develop is truly that of the inhuman partaking of the construction of postapocalyptic "interior landscapes" in which nature has always already been technologized to the point of erasure. How are we supposed to situate ourselves before composite virtual images that defy the "natural" laws of perspective while generating their own metareferent as if caught in a virtual hall of perceptual mirrors?

Stéphane Vanderhaeghe, Université Paris 8
Making Ends Meet, or "Ilblissum Akviss Noebleerum Iglitt Peem" Blake Butler's *Scorch Atlas*
Scorch Atlas (2009) by Blake Butler envisions the world from after a series of catastrophes and cataclysms that radically undermine conventional notions of what "nature," the "human" and "writing" are—notions that Blake Butler's book, as>book, precisely aims at denaturing. By charting a topography of the disaster, Butler addresses questions of survival that open onto the difficult perspective from which writing as such becomes possible by enacting or performing its own disaster, i.e. by positing itself always beyond or outside itself and thus pointing out the unnaturalness of all forms of language in the process. Scorch Atlas thus gives shape and body to a writing that never coincides with itself, itself a "catastrophe" that keeps questioning its "after." The opacity at stake in Butler's book, materialized both in its unhinged language and in the stained and damaged aspect of its pages—the latter itself nothing but a fiction or simulacrum already—not only calls attention to language as artifice, to writing as techne, but also to the "ends" that, if threatened by them, they nonetheless serve.

Session 2 (F)
Initiatives in the Digital Humanities: Institutional Support, Continuing Programs, and Scholarly Projects
Chair: *Rajani Sudan*
This roundtable will explore the questions of institutionalizing and funding continuing projects and programs in the digital humanities. While the Digital Humanities encompasses a range of methods, pedagogies, projects, and critical strategies, it also often suffers from uncertain institutional support, questions about the scholarly legitimacy of its outcomes, and the problems of defining its role in relation to traditional academic departments. The panelists--a Dean, a Director of a major interdisciplinary initiative, and the editor of a digital media series published by a major university press--will offer different perspectives on where the digital humanities stands in 2013 and what challenges it faces in the future.

Thomas DiPiero, University of Rochester
Contribution

Robert Markley, University of Illinois at Urbana-Champaign
Contribution

Rajani Sudan, Southern Methodist University
Contribution

Session 2 (G)
Thinking Nonmammal Animal Studies
Chair: Damiano Benvegnù, University of Notre Dame

Arnaud Gerspacher, The Graduate Center, CUNY
Alfred Hithcock's The Birds (1963) and the Ethical Recalcitrance of Nonhuman Animal Readymades
My paper is two-fold: the first section is a retro-viral reading of Alfred Hitchcock's *The Birds* (1963), which explains the oft-discussed mystery as to why the birds attack in the film through posthumanist agency and what we know today about the very real nonhuman actors' capacities through the ethology of the Corvid family. The second part explores the implications such a reading has on the now ubiquitous use of nonhuman animals as readymade material in contemporary art. The theorist Jane Bennett has described the "material recalcitrance" of things, which overflows the various codings and constructions placed upon their obdurate existence. I argue for a similar recalcitrance on the part of the nonhuman animal, which serves as an ethical pushback sending readymade strategies into contradiction and paradox. Animals are often understood as unproblematic readymade material; yet they call forth issues of sentience, consciousness, and above all, auratic singularity, making their use as artistic material fundamentally different from the industrially fabricated objects of the historical avant-gardes. The critical thrust of the Duchampian readymade is predicated on exchangeability and generalization, i.e. that there is nothing unique about any particular object other than its nomination as art. As a unique biological life-form, however, the animal can only disingenuously or cynically be treated in such a fashion as purely exchangeable. The violence inflicted on a urinal cannot be registered in the same way as that inflicted on an animal, who can live, see, and breathe this violence as its own and as something to resist.

Jeff Karnicky, Drake University
Avian Governmentality: Birds Becoming Data
More than 100 million bird observations have been entered into the online database eBird. eBird, and the management of the massive data that it produces has the potential to alter human-bird interactions. Real-time data, large scale models, and continual input combine to provide an incredible amount of information about bird populations. Because of this data, we know more about bird distribution, movement, and migration than has ever been known. Birds have become part of a Human-Bird-Computer Learning Network that underlies the management of every bird species in North America. In short, birds have become data, and this data has been used to change how conservation management is done. This paper will explore what it means that birds have become "Big Data." In doing a Foucaultian analysis of biopower, governmentality, and

birds, I will argue the following about the future of birds: it will be driven by contingent practices that will demand vigilance from those who seek a certain way of life for humans and birds. The future is limited by past and present practices, but its emergence can never be wholly determined. By looking at past and present practices, one might map out several possible futures for birds in North America. In terms of the intensive management of bird, the role of four interest groups seem especially important: citizens, government, corporations, and organizations.

Caroline Hovanec, Vanderbilt University
Towards Invertebrate Animal Studies: Julian Huxley and the Flatworm
Animal studies has made enormous strides in the last decade, but it has continued to center on one subset of animals. The most iconic images of animal studies—-Derrida's cat, Haraway's dogs, Kanzi the ape-—are all familiar, charismatic mammals. But what happens to animal studies when we shift the spotlight to other kinds of animals, such as invertebrates? Creatures like flatworms, sea squirts, and insects prompt different questions than cats, dogs and primates; the ethics developed in response to mammals and birds cannot simply be applied to invertebrates, and it is cognitively difficult to extend fellow-feeling to such phylogenetically remote animals. My paper explores the possibility of invertebrate animal studies through the writings of Julian Huxley. In essays like "Philosophic Ants" and "Living Backwards," Huxley describes the strange zoological traits of ants, planarians, and ascidians. These essays reveal the inadequacy of conventional forms of animal biography for describing invertebrates, developing a different kind of narrative to capture their rhythms of living. Huxley's representations of invertebrates show how our most basic assumptions about the world are subject to "biological relativity," and would not be shared by an ant or a flatworm. It has become a commonplace of animal studies that the category of the animal is, to quote Derrida, an "asinanity" that fails to capture the almost unfathomable diversity of real animals. Perhaps it is time for us to apply that lesson to our own practice, and to explore how different kinds of animals, from bonobos all the way to flatworms, produce different versions of animal studies.

Session 2 (H)
Truth &Consciousness
Chair: Sarah Roth, University of Notre Dame

Stephanie Bernhard, University of Virginia
The Truths of Climate Change Fiction
Realist fiction of climate change is in its infancy, and the shape it assumes will reflect and affect public conceptions of our climate future. Contemporary non-speculative fiction writers have generally mentioned the subject of climate change only tangentially. I examine climate awareness in two recent novels, Teju Cole's *Open City* and Alexis Smith's *Glaciers*, and conclude that each avoids direct confrontation with climate change due to skepticism of scientific climate predictions. Even within the liberating truth-frame of fiction, the novels resist correlating its characters' experience with scientific theory because the world still lacks perceivable evidence for climate change. My question: Is it possible to write successful non-speculative fiction about a phenomenon for which non-scientist humans have limited

phenomenological evidence? In other words, can literature expand our capacity for linking observation to theory? Fiction is good at fostering empathy, creating emotion in readers based on identification with characters. Can fiction also transmit a sense of the urgency of climate change, even though readers can't see it happening? I consider two non-speculative works that tackle climate change directly. The first, Barbara Kingsolver's novel *Flight Behavior*, plants scientists within the narrative to defend their theories in dialogue. But it's too didactic to foster empathy. The second, the film "Beasts of the Southern Wild," succeeds because it frames the ravages of climate change in the context of human emotions. This film serves as a foundation to consider ways future novels might engage readers and make them aware of climate change science.

Melissa Littlefield, University of Illinois at Urbana-Champaign
Playing the Role of a Humanist: Developing Disciplinary Double Consciousness Through Emergent Neuroscholarship
 "Neuroscholarship" (Johnson and Littlefield 2012) is a nescient term that could be applied to a wide selection of academic work, including collaborative partnerships and research teams that include both neuroscientists and scholars from the humanities and social sciences. Over the past five years, my research group (made up of social scientists, neuroscientists, and humanists) designed and executed a fMRI experiment that was intended to challenge current lie detection paradigms by inverting assumptions about "truth" as a baseline for human cognition. In this paper, I ask: what kinds of disciplinary compromises or complications emerged from our extended deployment in another discipline during this transdisciplinary endeavor? Ultimately, I argue that we developed what we term, "disciplinary double consciousness"—with deference both to William James' and W.E.B. Dubois' conceptions of "double consciousness" that emerged at the turn of the twentieth century. Focusing on the disciplinary double-consciousness experienced by the researchers during this fMRI experiment, I seek to uncover and analyze not only what kinds of intellectual and political possibilities are enabled by neuroscholarship, but also what roles humanists can and should play in these transdisciplinary settings.

Session 2 (I)
Clouded Subjectivities
Chair: Chris Vanden Bossche, University of Notre Dame

Matthew J. Dodson, Oregon State University
Network Effects: Reframing Climate Change through Actor-Network Theory and *The Echo Maker*
In this paper, I apply the theories of Jane Bennett and Bruno Latour to reframe climate change not as a product of massive multinational causes, but as a network of individual local actors working to produce tangible effects. In such a network, as Bennett argues in Vibrant Matter, individual action is the only form of action; we can effect change by isolating the sites at which we as individuals are connected to the network and extricating ourselves from those sites. But in order to isolate these sites, we must observe the network from a distance. As Latour explains in Reassembling the Social, we can create such a distance by fictionalizing the network and analyzing it through a textual frame. To apply my argument, I examine Richard Powers'

novel *The Echo Maker*, in which characters attempt to prevent the destruction of the last remaining sandhill crane habitat in rural Nebraska. Because the characters mistake abstract collectives for individual actors, they ultimately fall into fatalism and give up their resistance. But possibilities for change exist, if only the characters could identify and embody their roles as individual human actors in their ecological network. Instead of suggesting the Kantian categorical imperative, however, I propose a localized ethics grounded in ANT and Vibrant Materiality which asks not "what should *everyone* always do?" but "what should *I* do, here and now?" By reframing the problem, we can avoid the fatalism that pits individual actors against abstract multinational collectives and find new forms of environmental responsibility.

Jeanette Samyn, Indiana University
"'Scarcely Human': Quartering on Activity in Bleak House"
In Charles Dickens's Bleak House, a general sense of unsustainable ecology is particularly brought to bear on one London neighborhood. That neighborhood, Tom-all-Alone's, is a microcosm of the draining nature of urban life. A legal complication and geographical isolation leave it unregulated and out of the purview of most Britons; it forms a temporal enclave in which urban excesses wreak their havoc more quickly and life teems and fades faster than it does in the rest of the city—a city that is both booming and ailing in its own right. This essay considers Tom-all-Alone's ecological particularity, and especially its ability to sustain decay and to quickly grow new life that is creeping, sickly, and grotesque. The inhabitants of Tom-all-Alone's are called "vermin parasites"; they blend into their dwellings' walls like "extraordinary specimens of human fungus." At the same time, they are covered in fleas and other vermin and drained by the city and the mechanisms of wealth creation, which are described as parasitic in their own right. Drawing from emergent concepts of biological parasitism that were rooted in a longstanding discourse on decadent social parasitism, I consider what it means for an environment to drain its inhabitants just as those inhabitants drain their environment, paying special attention to the new life that results from such relationships. Bleak House, I argue, creates a post-apocalyptic space within a city that suffers from its own slow apocalypse; it suggests what comes after the city, after the hybridization of nature and capital.

Kaitlin Mondello, The Graduate Center, CUNY
"Perpetual Analogies" and "Occult Harmonies": Ralph Waldo Emerson's Naturalized Typology
In this paper, I explore Emerson's reinvention of the Christian tradition of typology as a means to understand the relationships between the natural, the human and the divine. I read Emerson's struggle to adapt new scientific information into language and belief as a precedent to posthumanist and postnatural projects. Freed from doctrinal constraints, Emerson employs the principles of typology to connect the animate and inanimate: "Not only resemblances exist in things whose analogy is obvious, as when we detect the type of the human hand in the flipper of the fossil saurus, but also in objects wherein there is great superficial unlikeness" ("Nature" 42). Emerson often draws on biological analogies to illustrate the interconnection between humans, animals and inanimate nature, which he refers to as a "sympathy." In this vein, Emerson concludes, "Each creature is only a modification of the other […] A rule of one art, or a law of one organization" (42). Throughout "Nature," Emerson deftly interweaves both science and the arts into his philosophy and theology. I argue that instances of what Emerson calls "occult"

"relations" or "harmonies" between seemingly disparate spheres are precursors to posthumanism's deconstruction of hierarchies. Emerson's expansion of typology likewise anticipates the Darwinian information that will dismantle human exceptionalism. Ultimately, I conclude that Emerson's own radical reinventions help lay the groundwork for a posthumanist world. Emerson, Ralph Waldo.*Emerson's Prose and Poetry.*Eds. Joel Porte and Saundra Morris. New York: W.W. Norton & Co., 2001: 261-268.

Session 2 (J)
Ecologies, Rhetorics, Codes
Chair: Jessica Hughes, University of Notre Dame

Derek Griesbach, University of Pittsburgh
Holding Nature Still: Rhetorical Meaning-Making at the Center for PostNatural History
We preserve nature by changing what nature means – a stasis challenged by the concept of the postnatural. This paper explores how the postnatural is framed by Pittsburgh's Center for PostNatural History (the Center) and shows how this coinage constitutes an act of rhetorical invention. To the extent that the concept of nature is drawn from the set of socio-cultural norms from which it is produced, so too is the postnatural. It is therefore critical to consider how the postnatural is publicly articulated. With the support of the Center's founding director, Rich Pell, my project describes how the Center's inventional strategy prompts meaningful contemplation by offering a general definition of the postnatural in relatively neutral terms – "living organisms that have been altered to meet human desires" – and then displaying particular organisms that fit within this frame. This presentation provokes a tension in need of resolve and leaves museum-goers arguing with themselves. These experiences are produced because the postnatural gestures beyond (or after) the natural, and hence the normally fluid concept of nature is held still. It is here, I contend, that the potential of the postnatural to reshape our ideas about environmental preservation resides: by preserving the concept of nature, we might see more clearly how our actions change the nature outside of our windows. Through the lens of rhetorical invention, therefore, this essay illuminates what the postnatural claims, what it leaves for the public to claim, and why this distinction matters.

Brendon Larson, University of Waterloo
Are novel ecosystems postnatural?
The concept of "novel ecosystems" has been proposed as part of a paradigm shift in how people think about ecological systems because it acknowledges the ongoing changes humans are causing and it is thus pragmatic about how to relate to them now and in the future. It also provides a dramatic contrast with prevailing conceptions, particularly related to the nature-culture duality implicit in thinking about invasive species. However, I argue that the concept maintains several limitations that may reduce its adequacy for promoting the purported paradigm shift: i) it is too static; ii) it is too vague; iii) it is too neutral; and iv) it is too dualistic. While there may be new wine in the concept of novel ecosystems, the wineskins—such as "ecosystem"—are perhaps too familiar, reflecting entrenched conceptions, and may thus undermine the work that the concept is meant to do. I conclude with recommendations on ways

to overcome these limitations in order to facilitate the transition towards greater acceptance of novel ecosystems.

Session 2 (K)
Dwelling with the Postnatural
Chair: Jesse Costantino, Notre Dame

Ilaria Mazzoleni, Southern California Institute of Architecture
Inspired Co-Existence: from Nature to Building
Humans are part of nature however, starting from the industrial revolution, we have positioned ourselves at the edge of the natural cycles and challenge them. Thinking of eco-systems from within a different, dynamic and regenerative approach to design becomes not only possible but desirable. Learning from nature's efficient interconnectedness allows designers to consider opportunities for multifunctional uses and streamlined design solutions. Moving from designing buildings in isolation to considering them within larger networks involves a simultaneous understanding of a multitude of factors. The presentation will illustrate several projects where the above approach is applied to architectural design: Eco-systemic restoration: a model community at Salton Sea" (author with Philip Ra et. all). The project illustrates how our individual ecological footprint is much larger then we are aware of. The project designs a community that not only composed of housing and public spaces around it, but also incorporates all the other necessary elements to feed, employ and create an exchange economy with the surrounding communities. This interconnectivity does not produce waste, but creates a chain of usage. This phenomenon although common in nature is still a novelty in architecture and exploring its potentials has been the team's challenge. Inhabiting the Dream. HH2100 (author with March Frohn). The near-future scenario we envision develops from recent climatology literature (see references) that suggests that LA, by 2100, will experience longer winters with twice the rainfall, and extremely hot summers. Such conditions could easily provoke debilitating wildfires and mudslides requiring a radical transformation of the suburban hillside condition. HH2100, envisions a re-scaled, liveable Hollywood Sign that sits lightly in the foothills, detached from the environment, yet allowing natural forces to dissolve and reshape landform contours and ecosystems as influenced by the changing climate. The high rise structures gather together the hillside populace displaced by storms and fires, establishing a [...]

Samantha Noll, Michigan State University
The "Reclamation"of Reason: Niche Reasoning and the Reintegration of the Human into Nature
While what it means to come "after" nature is an important question, in this paper, I focus on answering the question: What does it mean to be reintegrated with nature? While humans have historically been understood as "reasoning" animals (the project of denaturalizing) and this conception was used to separate humans from other non-human others (the project of separation), recent work in animal science undermines this history. In this paper, I use this work to briefly outline what a non-human centered conception of reason, that I call niche reasoning, would look like. I go on to illustrate how it could be used to undermine the two philosophical

projects of separation and "denaturalizing" humans. This "reclamation" project concerning reason is valuable for philosophical literature as it can help future work sidestep the Cartesian objectivity trap without abandoning a concept (i.e. rationality) that continues to be of paramount importance in philosophy.

6 :30– 9:30 p.m.
Opening Reception, Great Hall (southwest entrance of O'Shaughnessy Hall)
PostNatural Art Exhibition Grand Opening: Isis Gallery, O'Shaughnessy Hall
PostNatural Video Exhibition: Room 119, O'Shaughnessy Hall

> The Postnatural Art Exhibition in the Isis Gallery will be open from September 18th-October 23rd; the video exhibit will run only during the Opening Reception.

8 – 9:30 p.m. PostNatural DVT Screenings and Readings, Digital Visualization Theater, Jordan Hall

8 a.m.—6 p.m. **Registration Desk Open**, McKenna Hall First Floor

9 a.m.—6 p.m. **Book Exhibit**, McKenna Hall Concourse

Session 3 – Friday 9:00am- 10:30am

Session 3 (A)
Border Crossings: Science, Literature, Aesthetics, and the Romantic Era
Chair: Emily Stanback

This panel responds to a set of questions about disciplinary boundaries and aesthetics: What formal possibilities open up via collaborations between science and literature? What modes of knowing and being become possible only when we cross disciplinary boundaries? What makes such border crossings possible? And how, finally, can we vivify the scientific and the poetic anew by staging this interaction? To answer these questions, we look to the turn of the nineteenth century, an era when disciplinary boundaries remained porous. This permeability inspired British Romanticism's most inquisitive minds to actively pursue both scientific practice and literary production, inevitably generating hybrid forms from the intermixture, even when efforts fell short in one way or another. This panel seeks to identify and extend the relational potential embodied by Romantic authors. We hope to recapture some of the conceptual adventurousness of Romantic-era thought, and to rediscover the possibility for conceptual interchanges that might promise to bear fruit even in our age, when universities are highly structured—sometimes to the point of rigidity. All of our papers offer a reading of a Romantic text (or group of texts) to demonstrate a particular aesthetic yield of the Romantic cross-pollination of science and literature. But we also seek to extend our speculation beyond the historical, in particular asking

how specific aspects of science and literature continue to mutually illuminate one another. We thereby hope to present new avenues for appreciating, interpreting, and generating literary texts in conversation or collaboration with scientific practices, precepts, and theories.

Christopher Kelleher, University of Toronto
Peripateticism: Eternal Middles and "Apocalyptic Geology" in Byron's *Cain*
This essay considers Byron's engagement with contemporary geologic thought in *Cain*, specifically the catastrophism of Georges Cuvier, in its relation to dramatic form and "mental theatre." Using Dimitri Karkoulis's concept of "apocalyptic geology," I first examine how the epistemic break that Byron creates by inserting an extra-textual knowledge of geological science in the middle of the play's biblical narrative produces a traumatic rupture in *Cain*'s structure. This rupture within *Cain*'s "mental theatre" ultimately divides *consciousness* against itself – yielding a heightened self-consciousness that privileges a middle state, an interminable *midst* of consciousness, which is cursed to a "restless wandering" in search of dramatic resolution. Next, I posit that *Cain*'s peripatetic form and geologic content anticipates Frank Kermode's argument in *The Sense of an Ending* that both sacred and secular theories of creation over time have been guilty of attempting to impose their "fictions" of origins and ends on the face of eternity, thus reflecting the "apocalyptic spirit" in many of our cosmogonies. Byron eliminates these "fictions" by emphasizing *Cain*'s middle in light of the principles of geological deep time; and we are, like Cain, condemned to exist (and wander) in an intermediary, perpetual search for answers that we may never access within the vast scales of natural history. Therefore, by applying the geological concepts of catastrophism, deep time, and punctuated equilibrium to literary form, *Cain* helps us understand how the principles of geology may cross epistemological boundaries, how the natural sciences may inform our aesthetics, and how geology may engender dramatic forms that speak to states of consciousness.

Emily Stanback, Chemical Heritage Foundation
Romantic Self-Experimentation and the Aesthetics of Non-Normative Embodiment
This paper focuses on a method of scientific inquiry common to the Romantic era, self-experimentation, and puts Humphry Davy's chemical activities into conversation with Thomas De Quincey's opium use. The texts in which Davy records his self-experimentation with various chemical compounds may at first glance seem generically different than De Quincey's *Confessions of an English Opium-Eater*. Yet De Quincey claims medical value for his laudanum intake and, like Davy, foregrounds the act of self-experimentation and the aesthetic expansion it provokes. I will use Davy and De Quincey to open a discussion of the ways that self-experimentation puts the scientist's body at the fore—and thereby enables, and sometimes requires, new modes of aesthetic experience, epistemological inquiry, linguistic experimentation, and textual creation. This is true of De Quincey's and Davy's more pleasurable experiences with laudanum and nitrous oxide, respectively. But—and this is what I wish to emphasize because it runs counter to typical readings of the texts—it is equally true of De Quincey's moments of deeply painful embodiment, as he records dosages and symptoms in the throes of his opium addiction, as well as Davy's experimentation with dangerous nitrogen and oxygen compounds, which leads to grizzly injuries and, in more than one instance, the feeling that he might be "sinking into annihilation." By exposing the subject to new—and widely variable—states of non-

normative embodiment, self-experimentation productively disrupts the relationship between the scientist and the experimental object. More importantly, it unsettles the relationship between the subjective *I* and the body, and the self and the external world.

Alexandra Paterson, University of Illinois at Urbana-Champaign
The Porousness of Air and the Reception of Creative Thought in Adam Walker's *A System of Familiar Philosophy* and Percy Bysshe Shelley's *Prometheus Unbound*
When the tyrant Jupiter falls in the third act of Percy Bysshe Shelley's Prometheus Unbound the cold and turbulent atmosphere of his reign is replaced by a harmonious, socially-reformed world characterized by warmth. This warmth is associated with love, embodied in the drama by Asia, who "Make[s] the cold air fire" and "bind[s] / The disunited tendrils of ... the human heart" (II.iv.63-65). Asia's igniting and uniting recalls the unifying effect of heat, or "latent fire," that Adam Walker describes in A System of Familiar Philosophy (1779) which can "chemically unite" air and water in the evaporation process. Walker's early influence on Shelley, along with that of more contemporary science on Prometheus Unbound has long been acknowledged, particularly in relation to its bearing on Shelley's vision of a social utopia. This paper, however, asks what a knowledge of Shelley's science might bring to bear on an understanding of his constantly evolving thought about the reception of his own poetry. In Walker's experiments with the porousness of air and water Shelley finds a compellingly boundless element in which his own poetic experimentation can flourish. The atmosphere works both as a metaphor for the human mind in the turbulence of social revolution and as a space in which human thought and emotion can be shared and exchanged, but its boundlessness and porousness also makes it an ideal site for the meeting and exchange of scientific and poetic ideas.

Session 3 (B)
Postnatural Futurities
Chair: Chris Abram, University of Notre Dame

Kevin Dalton, Arizona State University
The End of the Beginning: Marking Time in the New World
According to nonlinear physicists Prigogine and Nicolis, a process "in the regime of uniform steady state … ignores time. But once in the periodic regime [e.g. a pendulum in a clock], it suddenly 'discovers' time in the phase of the periodic motion …. We refer to this as the breaking of temporal symmetry." Such a breakage marks the formerly "smooth" or unmeasured unfolding of difference into Deleuzian "striated" space: "The question of the emergence of metric or extensive properties should be treated as a single process in which a continuous virtual spacetime progressively differentiates itself into actual discontinuous spatio-temporal structures operating at different scales" (DeLanda). I contend in this paper that what humans call "nature" – the infinity of difference – has awakened to temporality through the breakage McKibben describes in Eaarth: "We're going to have to figure out how to stop focusing our economies on growth, and start thinking about survival …. We've built a new Eaarth. It's not as nice as the old one; it's the greatest mistake humans have ever made…. But we have to live on it. So we better start understanding what is going on." Up to this break, the procession of nature's difference was

unmarked. The imminent ecological crisis has generated "this earth," a planet now visible in the newly temporal immediacy of finitude mandating survival not growth. This essay confronts and challenges various literatures proposing different "ends" of nature – Morton's "ecology without nature," McKibben's Eaarth, Dick's Do Androids Dream of Electric Sheep? – within a conceptual framework inspired by the work of Lucretius, DeLanda, Stengers and Deleuze.

Stephen Loo, University of Tasmania
Black Sun: Postnatural disaster and the end of the human (thought)
The impending interplanetary disaster in Lars von Trier's *Melancholia* (2011), the psychological damage inflicted by Solaris's ocean in Andrei Tarkovsky's 1972 film, and the black monoliths catastrophically affecting human evolution in Stanley Kubrick's *2001: A Space Odyssey*; can all be seen as commemorating, through cinema as a techno-material practice, the resolution of the crisis for the meaning of human existence announced by the end of time. This paper will draw on how the cinematic acts as what Stiegler calls the "tertiary memory" of human existential angst when faced with extinction. Within these memorializations is a tussle between the transhuman extension of current structures of meaning, and the posthuman eradication of old ones, for the sake of new images of existence (Ashley Woodward, 2012). The paper will reflect on the connections between thought, materiality and existence to posit the postnatural as a way out of the trans- / post-human dyad, through two pieces of writing on disaster: firstly, Lyotard's "solar catastrophe" – the death of our sun in several billion years, incinerating the earth – that he uses to defend a "rational pluralism" in which aesthetic and ethical thoughts are historically specific, heterogenous to and incommensurable with the cognitive; and secondly, Kristeva's *Black Sun*, a state of narcissistic melancholy in which the depressive mourns not the object but a kind of archaic, unnameable pre-object.

Peggy Reynolds, Ohio State University
A Post-Natural Future: The Matter of Time
In its folding of the human into the causal loops which form deep time, the Anthropocene goes beyond the merely geological. It implies, as well, the necessity of rethinking ontology such that humans are understood to be of rather than in "nature" and, by extension, time. Recognizing this challenge, object-oriented ontologists, such as Timothy Morton, argue that there is no "bottom object" or fundamental particle to which all other objects might be reduced, nor is there a "top object" or god from which all objects can be produced. Instead, objects are monad-like in their autonomy, reducible neither to wholes nor to parts, simultaneously capable of a singular and collective existence. "Hollow" at their core, their relations take the form of interpenetrations. Time is the name we give to these, the cause of an object – its nested chain of relations – being indistinguishable from its form. Objects, Morton argues, are aesthetic all the way down and thus beyond the modeling capabilities of the reigning positivist paradigm. Though predating discussions of the Anthropocene and OOO by some seventy years, Walter Benjamin took a similar stance with respect to the aesthetic nature of objects and their enactment of time as such. My talk will explore how Benjamin's attempts to elucidate the shape of time through an investigation of the aesthetic object might further object-oriented ontologists' efforts to envision a non-anthropocentric future that goes beyond the organicism of Gaia.

Session 3 (C)
Specific Material Engagements: matters of apparatus in entanglements of nonhuman animals, computation and artificial life
Chair: Jane Prophet

This panel, comprising artist practitioners, takes a new materialist approach to considerations of nonhuman animals and the computational (the practices of computing, calculation and information processing). We reconsider instrumentation as apparatus by thinking through visualisation technologies, such as GPS and remote cameras, developed to document animals. We address the material-discursive consequences of apparatus that monitor, observe or produce computational nature. The panel focuses on how the animal is inscribed with, and by, new technology and the theoretical perspectives that we need in order to take seriously the participation and entanglement of nonhuman animals in computational systems. In considering nonhuman animals we introduce and problematise 'artificial life-forms', or Alife, that have historically been divided into three entangled categories: wet-ware (artificial biological life and augmented human and nonhuman animals), hardware (specifically robots) and software (computer programs instantiating emergent or evolutionary processes).

Helen Pritchard, HighWire Doctoral Training Centre, Lancaster University
Animal Hackers: Introducing a new materialist approach to considerations of the computational nonhuman animal
In this paper we use specific fieldwork examples to consider issues raised by ubiquitous computing for 'Big Data'. We address the deployment of environmental sensors (some of which are embedded in the bodies of animals), to gather, monitor and upload data on environmental processes. We draw attention to nonhuman animals in the computational ecologies of 'Big Data', in order to explore the entanglement of human and nonhuman bodies. We introduce the term 'post-natural computation' in order to discuss what Donna Haraway might describe as profound reconfigurations of bodies and processes of the nonhuman animal and computation. We consider activities of sensing not as measuring or writing the other, but instead as co-writing with articulate nonhumans, and question how we might think with and from nonhuman animal-writers. The diffractive figure of the 'Animal-Hacker' is used to consider the articulation of nonhuman animals in the computational ecologies of 'Big Data'. The paper focuses on how the animal is inscripted with, and by, new technology and the theoretical perspectives that we need in order to take seriously the participation of nonhuman animals in computational systems.

Simon Penny, University of California at Irvine
Art, Computing and the Material Turn
Questions of materiality and embodiment have dogged the history of computer articulated cultural practices since the commodity PC hit the art-world in the late 80s. Contrary to glib rhetorics of 'convergence', at root was (and is) an ontological rift between Cartesian dualism and embodied holism. This Cartesianism was carried into the art-world by the computer, trojan horse-like. In an unusual historical synchronicity, at the very same time this value system was being carried into the art world, it was collapsing at its center, in computer science and particularly AI. After a half-century in which the reigning dogma across academic disciplines

affirmed the priority of the symbolic – from conceptual art to cognitivism to post-modern textuality – the emergence of Artificial Life, Actor Network Theory and post- and anti-cognitivist conceptions of cognition (etc) heralded a 'material turn'. Such a position harks back to biologically-derived agent/environment models in Cybernetics, Autopoietic biology (Maturana) and ecological psychology (Gibson) and manifests a 'new ontology' (Pickering) of performativity, material engagement and liveliness. Such an approach now permits the formulation of a relationship to computation (among other things) which supports an embodied and material approach to interaction, particularly interactive art. More widely, this material turn affords a new language with which to discuss art practice, one which does not recapitulate an invidious Cartesianism in its rendering invisible the 'intelligences of material engagement'.

Jane Prophet, City University at Hong Kong
Artificial Life: ecologies and apparatus of simulation
Through a discussion of practice-based arts research, we explore the apparatus of computer simulation, in particular its use by artists working with scientists. We draw on the work of Karen Barad to suggest that an artist using existing scientific apparatus produces and is part of intra-actions through which understanding or knowledge emerges. The perspectives and experiences of artists' practices result in engagements with instruments that are qualitatively different from those of a scientist who is working with the same instrument. We focus on specific simulations, commonly referred to as 'artificial life-forms', or Alife. Alife forms have historically been divided into three entangled categories: wet-ware, hardware and software. This paper focuses on software Alife, computer simulations of complex biological systems instantiating emergent or evolutionary processes, and their use as apparatus in scientific research. A new materialist approach to understanding how this particular apparatus of science emerges, allows us to move beyond the binary divide between nature and culture, and take seriously their integration. We suggest that these computer simulations of life are themselves both instruments and ecologies.

Jen Southern, Lancaster University
GPS translations: between the matter(s) of movement and maps
This paper focuses on the GPS tracking of reindeer by indigenous Sami reindeer herders in northern Sweden, in order to reflect on GPS apparatus as temporal assemblages, and reindeer as interlocuters between movements and maps. Sami reindeer herding practices in northern Sweden have incorporated new apparatus over many years: bells on lead reindeer; skis; binoculars; refrigerated trucks; snowmobiles and helicopters. GPS collars, transmitting live locational data, are the latest of these technologies and it enables the herders to locate where reindeer are from a distance, but also to translate the language of movement and process into the more formal language of mapping and GIS systems used in negotiations with land owners, and for the reindeer themselves, through their movements, to become actors within these discussions. Using Lefebvre's rhythmanalysis I focus on the temporal and seasonal nature of reindeer herding and migration to describe landscape as co-produced by a series of different temporal rhythms that are left out of traditional maps. This temporal entanglement of matter, data, animals, humans, movement and maps is discussed through the lens of a short artists residency with researchers at the Swedish University of Agricultural Sciences.

Session 3 (D)
Critical Game Studies 1: ARGs and the Politics of Play
Chair: Patrick LeMieux

This is one of a series of four panels dedicated to critical game studies. The panel features a range of approaches varying from the historical and theoretical to the artistic. Participants include both game designers and scholars. The function of the series is to analyze how games operate in contemporary information economies and undertake a rigorous analysis of how games as a cultural as well as technological apparatus speak to larger political, cultural, and aesthetic issues.

N. Katherine Hayles, Duke University
Futurity, Temporality, and Speculation
One of the factors contributing to the 2008 financial meltdown was David X. Li's "copula" equation. By assessing risk on financial derivatives, it was instrumental in expanding the market for derivatives and hence contributed to the subprime mortgage crisis. Time enters into his equation in two ways: as a function of "survival times" as a measure of time to default, and as a function based on credit default swaps, a form of insurance against possible default at some time in the future. The equation monetized the future by indicating the correlation between derivatives that were referenced only indirectly through credit default swap pricing. Since correlation is not causality, the equation was a guess based on an estimate. By using probability functions, the equation implicitly assumed an equilibrium model. When the underlying subprime mortgage assets quickly went south, the equation ceased to predict anything except its own demise. The copula equation provides a textbook example of the ways in which financial models do not just model the market but actually create it. At issue is a future that behaves "nicely" for finance capital by following the trajectory of past data sets, versus a future that remains capable of stunning surprises. Our Alternate Reality Game Speculation, co-directed by Patrick Jagoda, Patrick LeMieux and me, explores the possibilities for resistance to creating a recursive loop between the present and the future, thus defeating orderly linear extrapolations that work to monetize our future and control the parameters within which it can evolve.

Peter McDonald, University of Chicago
"If you want to play games, there is a form for that": Freedom and the Injunction to Play in The Project
The practice and ideal of creating pervasive play confronts initially and insistently a set of political paradoxes around play's utopian character. Drawing on the recent alternative reality game The Project, and particularly the moments where an invitation to play failed, I will argue that the genre gives rise to two senses of playful utopia and two kinds of politics. The work of pervading, with its gaseous metaphors of boundary crossing, constantly involves a negotiation with non-players that traditional games bracket, or understand as a moment of persuasion, addiction, or propaganda. In contrast, from the perspective of pervasive play the non-player is not a potential market to be captured, but someone not yet able to play. In thinking about a geographically specific audience who were not already players, The Project illuminates the centrality of this ethos and utopianism to the genre. The first, and traditional, understanding

views non-players as suffering from an injunction not to play instilled by maturity and moribund adulthood. Here freedom becomes something psychological, where players risk embarrassment and awkwardness at not knowing the game or being poor players. The goal of free play would be to lift this injunction, and which leads to a political critique of who is and isn't allowed to play. The Project opened as a world where wildly differing and absurd interpretations were taken as gospel, and where players were invited to improvise with actors in a hybrid of invisible theater and live action role-playing. Yet this invitation often dramatically failed to convert spectators into players. It is precisely this encounter, endemic to pervasive play that gives us an opportunity to think out a different freedom, utopianism, and politics of play.

Patrick Jagoda, University of Chicago
The Project: Transmedia Games and the Politics of Pervasive Play
In his description of the "information age," Manuel Castells describes the fundamental unit of our postindustrial economy and its network enterprise to be the ephemeral "project." This paper interrogates the paradoxes of the project form through an Alternate Reality Game that I directed in April 2013. The Project — a Chicago-based collaboration with Sha Xin Wei, the Topological Media Lab, and students at the University of Chicago — was a pervasive experience that combined transmedia storytelling, performative role-playing, responsive media environments, and live games. Over the course of the game's 25 days, players infiltrated three conspiracy groups involved in a shared enterprise. The experience that unfolded came, both in intended and unexpected ways, to serve as an allegory of the game design and production process itself. In a variety of ways, this game explored the possibilities and limits of play in an early twenty-first century media ecology that includes screen-based entertainments and social media networks. Whereas older forms of play often departed from or resisted industrialized labor, the post-industrial period has seen a blurring of work and play. Instead of merely dismissing that interpenetration, The Project sought to inhabit it at the level of design and production (through a form of always-on just-in-time game design) as well as player experience (through a pervasive form of play that challenged the space-time boundaries of conventional digital games). Our game both interrogated and adopted the flexibility of the project form to produce an "augmented reality" through radically sited experiences and emergent networks of play.

Session 3 (E)
Against the Postnatural: Cultivating Habits of Conversation with the Cosmos—Large and Small
Chair: Steven Meyer, Washington University Saint Louis

What kind of work is the concept of the postnatural doing, and to what extent should it serve as a lodestar to guide us or a warning against advancing further in this direction? In *The Concept of Nature* Whitehead famously "protest[ed] against . . . the bifurcation of nature into two systems of reality . . . the nature apprehended in awareness and the nature which is the cause of awareness." ("Thus there would be two natures," he noted, the latter "the conjecture" and the former "the dream.") No doubt moving beyond a bifurcated nature is a desirable, and indispensable, aim, but what is gained, and what lost, in doing so in the name of a further bifurcation, between the

natural and the postnatural? Is "postnatural" the post- that breaks the camel's back? For how is one to move past a bifurcated nature when one's terminology replicates the very logic of the break? Does such a break necessarily "break bad"? Finally: is upending the previous order the only way to go—or does it reinscribe the same mix of dream and conjecture it strikes against? These are the sorts of questions the speakers on the present panel wish to raise; and instead of calling for an all too clean break with the past (the given, the natural), they return to several exemplary moments, not quite past yet—Peirce scanning the heavens, Bachelard qualifying "epistemological break" with "phenomenotechnique," Whitehead proposing a generalized "science of organisms"—that speak to the present predicament.

Joan Richardson, The Graduate Center, CUNY
Into the cosmic weather, once again
As many have noted, Charles Sanders Peirce coined his own name *pragmaticism* for the philosophy he had founded, finding that his original *pragmatism* as it had become popularized largely through the work of his dear friend William James, had lost an essential aspect. Peirce deliberately wanted to preserve what Immanuel Kant had underscored in making the distinction between the *pragmatisch* and the *praktisch*; James felt the *praktisch* sufficient, containing both aspects. In contrast, following Kant, Peirce extended what we understand to come under the heading of "nature" and directly prefigured what we mean today by the "ecological"—but at a far vaster scale than Kant, moving himself into the neighborhood of stars. Trained from childhood by his father, the noted Harvard astronomer and mathematician, Benjamin Peirce, to stay awake late into the early morning hours observing stars eons long dead whose light was just reaching earth, Charles Peirce learned to cultivate habits of conversation with the cosmos that would later enable him to correct the star catalogues of Claudius Ptolemy and Tycho Brahe, for example, from their observations in the 2nd and 16th centuries, thereby opening the "conversations with nature" that Emerson had enjoined to, until then, immeasurable time scales. It was this practice that informed his insistence on the difference between <em.pragmatism< em="">and *pragmaticism*. My paper will address the space that this difference describes in the hope of restoring this enlarged conception to what current practitioners of *pragmatism*understand as their method.</em.pragmatism<>

James J. Bono, SUNY-Buffalo
Breaking Bad: Bachelard's 'Phenomenotechnique,' Stenger's 'Ecology of Practices,' & Whiteheadian Resistance to the 'Epistemological Break'
This paper will revisit the notion of an epistemological break, or rupture, in science studies in order to insist upon an alternative view of science as practice. While scientific change has frequently been figured as a rupture or break—think of the massive impact of Kuhn and Foucault—whose genealogy stretches back to the work of Ludwig Fleck and Gaston Bachelard in the 1930s, the very notion of a break easily finds itself complicit with what Isabelle Stengers criticizes as the nostalgic search for a "universal neutral key." While Bachelard does introduce a notion of an "epistemological rupture," he does so in a context that restricts its range and meaning. Certainly, other aspects of his work open up alternative possibilities for thinking about science and science studies. Thus, Bachelard's notion of "phenomenotechnique," as Hans-Jörg Rheinberger has argued, stresses the constructivist and localized work that a "technique of

realization" accomplishes in the emergence of and our engagement with material objects. By comparing and contrasting Bachelard—and specifically Rheinberger's reading of him—with Stengers' ecology of practices, and emphasis on the specificity of practices with their Whiteheadian roots, I hope to specify more precisely the importance of resistance to the epistemological break.

Steven Meyer, Washington University at St. Louis
Twentieth-Century Romantic Revival: Whitehead's Philosophy of Organism and a Generalized Science of Organisms
In *Science and the Modern World* [*SMW*], Alfred North Whitehead proposed that the apparently disparate sciences were in the process of coalescing into a more general science—with the different special sciences organizing themselves along a spectrum and investigating organisms ranging from the subatomic and molecular to the cellular and organismal in the more traditional biological sense on up to astronomical enormities. Each science was concerned to formalize and, where feasible, mathematize the organisms in question as well as their complex environmental interactions. Beginning in *SMW* and continuing in *Process and Reality* and subsequent writing, Whitehead described a corresponding "philosophy of organism," designed to establish generic concepts appropriate to the full range of practices and inventions of the specific forms of scientific investigation, each with its distinctive set of objects or organisms. Although Whitehead argued that traditional taxonomies of the sciences were in the process of being supplanted, he did not regard the situation as revolutionary in the sense of entirely upending the previous order. Rather it had emerged gradually on the basis of developments in multiple fields. Three such developments, emphasized in *SMW* and for the most part assumed in later works, form the twin foci of this paper: the parallel emergence in the mid- to late-nineteenth century of Darwinian evolutionary theory and of Bernard's new physiology, with its diverse applications, along with what Whitehead termed the romantic reaction or revival in literature, exemplified by Wordsworth and Shelley several generations earlier.

Session 3 (F)
Co-Dependent, Post-Dependent
Chair: Kim Lacey

Being considered "post" anything automatically binds the before and after (crudely speaking) in an unbreakable dependency. The "post", as Latour has forcefully argued, cannot even exist without a concrete predecessor. Expanding on the idea of a pre- and post- dependency bind, this panel explores various intersections where a break between the natural and something else is quite evident. Our first speaker examines the rhetoric of environmentalism seen through the lens of anarchism. Suggesting that a time when our potential extinction demands coalition-building and concerted efforts to resist ecological disaster, this paper suggests that anarchism provides us with strategies for persuasion that are particularly salient. Our second speaker is focused on the common, suggesting that in light of the rise of globalization and networks which threaten to push past the idea of community and instead organize humanity in a more decentralized manner, the drive to form collectives and communities remains strong and functions within these networks.

Our third speaker examines the role of appearance that occurs during animal and insect metamorphosis, questioning how the pre- and post- transitional body heightens our understanding of evolutionary tactics. Finally, our fourth speaker focuses on the ways nature heeds its limits and the ways our consumerist practices ignore that call. Following Allan Stoekl, the notion of expenditure, and a tragic sense of higher forms of destruction, in a sense become the ethical questions of our age.

Mike Ristich, Michigan State University
Imagining Collectivity in the "Postnatural" Age: Rhetoric, Sympathy, and Radical Ecology
Since becoming a recognizable political program, anarchism has been entangled with questions of ecology. From Peter Kropotkin and Elisee Reclus in nineteenth century Europe to James C. Scott and John Zerzan in twentieth century America, anarchist thinkers and activists have pointed our attention to the interconnectedness of libertarian socialism and environmental sustainability, as well as capitalism and ecological devastation. As Bookchin reminds us, "The notion that man must dominate nature emerges directly from the domination of man by man" (24). However, within the critical social sciences and humanities, the anarchist contribution to questions of ecology remain either unrecognized or limited to a critique of capitalism and the State. At a time when our potential extinction demands coalition-building and concerted efforts to resist ecological disaster, this presentation suggests that anarchism also provides us with strategies for persuasion that are particularly salient. That is, drawing from the anarchist thinkers above, as well as Adam Smith's rhetorical theory, this essay will argue for a rhetoric of sympathy that stands in opposition to the "reasoned," "rational," and dialectical rhetorics that mark much of the political debate surrounding environmentalism and sustainability, and offers, instead, a rhetoric that emphasizes the affective and aesthetic in the process of persuasion.

Kim Lacey, Saginaw Valley State University
Meta-metamorphosis: The Aesthetics and Survival of Transition
Lacey, Kim(Saginaw Valley State University; krlacey@svsu.edu)
This paper interrogates the physical dependency of before and after of a metamorphosed body by taking a look at the changing appearances of various insect and marine creatures. By interrogating two popular science texts, Frank Ryan's text The Mystery of Metamorphosis and also David Rothenberg's Survival of the Beautiful, this paper will look at the aesthetic and biological shifting of external appearances. In what I am calling "transitional appearance," I will use the idea of metamorphosis to suggest that a change in species-level appearance both heightens and limits some of the challenges to evolutionary success. By asking how might we use the notion of the post-natural to think through metamorphosis, this paper will interrogate the importance of a transitional appearance for survival.

Conor Shaw-Draves, Saginaw Valley State University
Newsfeeding Communities: Social Organization in Media Commonplaces
It can be argued that it is human nature to organize around something that is held in common, whether that is common space, a common belief, a common purpose, or common resources—as can be seen in the rise of the nation-state as the dominant form of governance prior to the current paradigm of globalization. Even now, however, communities continue to assemble around

elements such as shared pastureland or the shared resource of an ocean fishery. The rise of globalization and networks threaten to push past the idea of community and instead organize humanity in a more decentralized manner, positioning individuals as distinct nodes along a rhizomatic, decentralized network. However, in light of this fragmentation and decentralization, the drive to form collectives and communities remains strong, and functions within these networks. One robust example of the use of networks to form communities, I argue, is the Facebook news feed, specifically, as Aristotle wrote in the Politics, a place that is privately owned yet communally shared. In this paper, I will draw from the Aristotelian notion of the commonplaces, as well as legal and resource management theory to highlight how each newsfeed functions as a common place for community organization. With this theoretical foundation, I will explore how a retheorization of the social media newsfeed raises questions about community building in an increasingly decentralized environment and how these communities share in common spaces, common places, and common goods.

Jared Grogan, Wayne State University
Use Your Illusion: Nature, Waste and Excess in an Age of Scarcity
Nature has a way of reminding us of limits, of when it's time to take a loss, to burn off the excess energy at something that is not 'work'. Allan Stoekl is one of several thinkers positioning Bataille as an ethical ecological thinker for whom "there is always too much rather than too little," and claims that sustainability can instead be a "logical after-effect" in a future that somehow recognizes limits through their transgression, and celebrates excess expenditure through the ritual, emotionally charged destruction of excess wealth on a more human and physical scale (277). This entails "the affirmation of pleasure, ritual, glory, and anguish before death" (264). Following Stoekl, the notion of expenditure, and a tragic sense of higher forms of destruction, in a sense become the ethical questions of our age. We've become blind to the real roles of expenditure, and we must, as Stoekl says, "distinguish between versions of excess that are 'on scale of the universe,' and whose recognition-implementation guarantees the survival of society (and human expenditure) and other versions that entail blindness to the real role of expenditure" (254). This presentation extends Stoekl's treatment of Bataille by comparing three historical examples of "higher versions of excess", "glorious loss" or "theaters of waste": Sophie Gee's study of 18th century displays of filth in Making Waste, Susan Strasser's study of 19th century celebrations of waste that became a central feature of American consumerism and style, and a more recent rejection of morality and stewardship by environmentalists in favor of a celebration of a certain version of post-nature and a certain kind of excess in the face of scarcity and ecological devastation.

Session 3 (G)
Horses: In House, In Hand, and In Person: Session 1
Chair: Nigel Rothfels

The contributors to these two panels are thinking about new, perhaps postnatural, ways to talk about the physical, emotional, and intellectual embodiedness of horses and how those aspects of the creatures must be part of our interactions with them and thinking about them. Coming from a

range of fields – including archaeology, literary studies, art practice, American studies, and veterinary practice, the panelists will discuss how intimate living with horses, engaging them as complex living entities and being open to new configurations of human/horse relationships, opens up our thoughts and work about horses.

Gala Argent, Eastern Kentucky University
"Babysitters" and "Schoolmasters": Shared Worlds and Pedagogy in Learning to Ride and Be Ridden
Many people who live with and write about nonhuman animals acknowledge that humans and animals can participate in relationships which are, at least to some degree and with some animals, conceptualized as mutually understood and enacted interdependencies between individual actors. One such interspecies interface concerns that of learning to be ridden (for the horse) and learning to ride (for the human), where beginners from one species learn from a more experienced member of the other species. Horses are large and potentially dangerous creatures, yet across a variety of human-horse cultures people entrust their children and inexperienced riders to a particular type of patient, thoughtful and usually older horse. These horses, termed in Euro-American culture "babysitters" or "schoolmasters," keep their charges safe while teaching them not only the physical aspects of the project—how to balance, turn, stop, and go—but also a set of shared norms where bi-directional care is mutually constituted as meaningful. This paper investigates this intersubjective horse-human practice as both reflective of and generative of a particular type of interspecies relationship. Using a multidisciplinary approach combining ethological, relational-communications, ethnographic and autoethnographic understandings I explore the phenomenon of equine teachers as inter-social, inter-personal and inter-cultural. Through this lens, the practice of horse-human apprenticeship appears as a shared world in which the human is, at least initially, disadvantaged, and where knowledge and meaning are cooperatively looped between caring actors of two species. This view challenges prevailing narratives about both human domination/equine submission, and culture as a solely human-generated endeavor.

Richard Nash, Indiana University
Therefore, the House is Best
The title for my comments today comes from an unpublished manuscript by the 17c general Thomas, Lord Fairfax that I have convinced myself (and will soon, I hope, convince others) is one of the foundational written documents in the breeding of the thoroughbred. I hope to think in these remarks about the thoroughbred as a managed breed with a specific history and an explicit performance purpose; and to think about continuities and conflicts across the complex shared history of horses and humans in this cooperative endeavor. While my comments will range across both temporalities and topics, I want to attend to key ideas (like improvement and enhancement), the complex interactions that constitute performance in this very precise multi-specific arena; and how these interactions and ideas have important implications for how we think about policy considerations today. And all of this, I hope, will circle around the very specific site of the barn, as a place to return to, rather than to be inclosed in.

Karen Knarr, East Ridge Animal Hospital in Chattanooga, Tennessee

The Personality of the Horse
Do horses have personalities? Do their personalities have an influence on their medical problems? Do their personalities have an influence on what type of training they will do best under? I am a veterinarian that is certified in acupuncture, herbal therapy, and food therapy for horses, dogs, and cats. I have had over 450 hours of training in traditional chinese veterinary medicine (TCVM). I have practiced TCVM for nine years. I always thought that each animal has their own unique personality, but until I studied TCVM, I did not know they could be categorized. Horses are thinking and feeling animals. Recent studies have concluded that horses remember pasture mates that they have been separated from for at least ten years. I have found from my experience that the personality of a horse has medical and training implications. Whether they are "outgoing" or "introverted" makes them more prone to certain medical problems. Also, depending on the human's personality, this has a direct effect on how successful their partnership is. I conclude that humans should also take the same personality test to see which type of horse they should work with. If this is done before a person buys a horse, the horse will be less likely to end up in a bad situation.

Session 3 (H)
(Post)Natural Reproductions
Chair: Abby Goode

This panel revisits long-standing assumptions about the naturalness of reproduction, the most central being that it is generally a heterosexual, human, and environmentally healthy process. Even as scholars and artists challenge the ideologically-charged concept of nature, little has been said about how postnatural methodologies might recast reproduction as nonhuman, fragmented, and non-hetero. In Liminal Lives, Susan Squier calls attention to the diverse forms of non-hetero, nonhuman reproductions that occur in the environment. Since then, Timothy Morton has called for a bridging of ecocriticism and gender and sexuality studies, specifically in order to engage with these forms of reproduction. In critiquing and relinquishing the idea of "nature," this panel opens up possibilities for studies of reproduction that go beyond the "natural," that is, the hetero, the familial, the human, and the sustainable. To this end, we provide case studies of postnatural reproductions, examining the discourse of sustainable agriculture and fertility, portrayals of embryology and genetic transmission, and the practices of traditional and rogue taxidermy. Goode reveals the transnational reproductive sprawl inherent in discourses of sustainable agriculture which tend to emphasize local, "natural" fertility. Turning to science fiction, DiMaggio analyzes the role of the matrixial in genetic and epigenetic discourses about reproduction. Finally, Sattar discusses rogue taxidermy, a practice which ironizes and revises traditional forms of taxidermy that endorse the prowess of hunters and reproduce conquered beasts of nature. In closing, Susan Squier will act as respondent to this panel as it inaugurates a postnatural chapter of repro-scholarship.

Atia Sattar, University of Southern California
 (Post)natural Selection: The Creative Turn of Rogue Taxidermy
Taxidermy reproduces the animal, creating and arranging it again in part or whole, its mounted

body engaged in life-like activity. Traditionally intended as a means to preserve beasts of nature for study and display, contemporary taxidermy has gone rogue through the creation of animals that have no existing counterparts. The resulting creatures, often a combination of various animal parts, may give form to a mythical being, such as a dragon, or produce an entirely original custom creature based on the taxidermist's imagination. Rogue Taxidermy attempts to counter what it considers the provincialism of conventional taxidermy and is replete with the language of creativity, resurrection and immortality. Sarina Brewer describes her work as recycling "the natural into the unnatural, breathing new life into the animals she resurrects." How can we understand this peculiar redoing and reproduction of natural beings? The Minnesota Association of Rogue Taxidermists declares itself as espousing "the belief in natural adaptation and mutation." The association even invites visitors to visit an online Beast Blender and "create a being that has never existed." How does the creation of non-existent animals promote natural adaptation and mutation? Rogue taxidermists select and create (post)natural beings, coming after nature, from nature, drawing on and mutating the principles of a traditionally understood natural selection. Not surprisingly, this unconventional aesthetic mode of depicting and reconfiguring natural beings is criticized for not being "true" to its art; for rogue taxidermists, however, their work is "the artistic turn of form, or the future turn of science."

Sara DiMaggio, Pennsylvania State University
"Do they ever ask where they came from?" The Rhetoric of Science and Matrixial Space in Contemporary Science Fiction
In this paper, I examine depictions of reproduction in two contemporary science fiction trilogies: Margaret Atwood's Maddaddam and Octavia Butler's Xenogenesis. Though Butler's reliance on the scientific discourses of epigenetics and symbiogenesis pulls her text away from a strict rhetoric of the gene-as-code, both trilogies also rely heavily on a genetic rhetoric that places DNA at the center of all reproduction. I argue that this intersection with genetics means that the trilogies consider only whole organisms—the question of holistic, human identity—rather than the permeable and unstable fluctuations of those organisms—the processes that surround their making. Thus, I ask what is pushed aside when genes are figured at the center of all discourses about reproduction. The varying levels of interest within the texts in the question of gestation—of where, how, and from what a creature may grow—do more than simply mimic questions raised by reproductive technology. Rather, an examination of these trilogies and the discourses they arise from illustrates the texts' inability to account for what Irina Aristarkhova refers to as the matrix: the space of maternal subjectivity embodied in the pregnant subject. Through this failure to place the gestating body as an active part of a larger reproductive network, these texts illustrate the vital need for a repositioning of reproduction as able to account for its fluctuations, processes, and parts.

Abby Goode, Rice University
Sprawl and Sustainable Agriculture's Local Fertility
As of late, ecocritics have interrogated the status of the local in sustainability discourse. But we have yet to examine reproduction within this context, even as sustainability's definition emphasizes "future generations." Julia Alvarez's A Cafecito Story (2001), the tale of an organic coffee farm struggling against agribusiness, offers a case study wherein sustainability's localism spawns an imaginary of sprawling agricultural fertility. This study reframes reproduction and

sustainability discourse as spatial rather than simply intergenerational and reveals how localism indirectly endorses agricultural sprawl. Through a (post)natural critique of Alvarez's modern fable, particularly its portrayal of fertility as sprawl, I excavate the novel's "agrilogistics," Timothy Morton's notion that more existence is better than less existence, no matter how ecologically unsound. Analyzing Alvarez's descriptions of "natural," local reproduction—a nurtured coffee plant or a mother singing to her womb—alongside the accompanying woodcut illustrations, I show how the tale contrasts the local particularity and heterogeneity of fertile sustainable spaces—family farms and fields—with the cold, clone-like, technical reproducibility of agribusiness and industrial landscapes. Despite this contrast, the text unconsciously performs a reproductive sprawl; it portrays a transnational agricultural fertility, pivoting, via tropes of reproduction, from rural localism to an expansive sprawl. Concluding by encouraging its readers to pass on the story and purchase organic coffee, the text itself enacts a desire to endlessly reproduce itself as a sustainable product across geographical space. The paradox of sustainability, then, is that its emphasis on the local encourages a transnational reproductive sprawl.

Respondent: *Susan Squier*, Pennsylvania State University

Session 3 (I)
Smooth Surfaces & Withdrawn Objects
Chair: Alfred Nordmann

Alfred Nordmann, TU Darmstadt
Beyond Friction - The Objects of Technoscientific Platonism
 "Technoscientific theories" are a very special brand of theories that rehearse and reflect the quest for transcendent phenomena and the technoscientific pursuit of that limit of the physical world where things become simple because we control them completely. These technoscientific theories cannot be imagined without their objects of interest that organize theories and experiments – objects that are nowhere to be found in nature, but lie beyond its limits. One such object is the nanowire that will channel an electrical current through a single molecule, another is the frictionless surface upon which objects can slide in perpetual motion. It is these impossible objects that are the vanishing point of engineering efforts, which become emblematic of a world that is much simpler than the one we inhabit with all its grime and complexity. By tending to these theories and their objects, we arrive at an "inverted Platonism," that is, at a realm of pure objects or ideas that do not lie behind or below the appearances but beyond them. This presentation - addressing "the language of engineering and control" - will focus specifically on an example from "nanotribology" and experimental proofs of concept of the idea that frictionless motion across a surface is possible.

Marina Zurkow, ITP/New York University
Immortal Plastics
The postnatural world is a world in which we wake up to -- even befriend -- other earthly and temporal agents, animate and inanimate, who operate on diverse agendas and time scales. Since 2011, I have been working on an art + research thread about the landscapes of petroleum and

geological time, entitled "Necrocracy" (governance by the dead). The most recent projects include "Immortal Plastics," an analog personal assessment system / performance, and "Outside the Work," a series of petrochemical dinners and tastings, both of which explore our entanglement with hydrocarbons.

Session 3 (J)
Deleuze, Mathematics, and Art
Chair: Steven J. Oscherwitz

This panel aims to explore the artistic dimensions of mathematical thought and, reciprocally, the mathematical dimensions of artistic thought, in part following Deleuze's and Deleuze and Guattari's philosophy. The panel's discussion of art will focus on, in Paul de Man's language, the relationships between phenomenality and materiality of artistic process or poesis, and the role of mathematical thinking in this process. Reciprocally, the panel will consider the nature and structure of poesis in mathematics and mathematical physics. The papers to be presented will address such fields as topology, differential geometry, and quantum mechanics, considered both in their own terms and in relation Deleuze and Guattari's key concepts—multiplicity, nomadology, lines of flight, and so forth. Special attention will be given to the philosophies of space and time, such as, in addition to that of Deleuze and Guattari, those of Bergson and Whitehead, that allow for innovative excavations of intuitional structures related to "non-Euclidean" spatiotemporal architectonics that are heterogeneous, asymmetrical, chaotic, and so forth, and that, accordingly, depart from Euclidean geometrical thinking, defined by homogeneity, symmetry, and order. Given that, throughout the history modernity, especially with the rise of Newton's physics, "nature" was essentially conceived along the lines of Euclidean thinking, such architectonics also essentially relate to the question of the post-natural, which will be addressed in various contexts in the papers presented in this panel.

Steven J. Oscherwitz, University of Washington
Deleuze, Maimon, Bergson and Intuitional Structures
Most conventional (ancient or modern) conceptions of art objects see these objects, at least in the case of "true" art, as emanating from an aesthetic process, which, while it may, as a process, be temporal and subjective, reflects ideal forms existing or processes occurring in a transcendent metaphysical realm. Such conceptions themselves can be quite diverse, and the transcendent realms in question may be conceived either (as is more common) as that of spirit or as that of nature, and may sometimes be seen as temporal, albeit in terms of a certain ideal, transcendent temporality. We may assemble such conceptions under the rubric of "classical." I feel that this is an antiquated and obsolete way of conceptualizing what an art object is and what are the processes and structures it originates from, even though this way of thinking continues to persist and remain dominant even in the face of powerful criticism of it and alternatives to it developed for over half a century now. In contrast to such classical conceptions and in accordance with some among these alternatives, I would like, in this paper, to advance a view of artistic objects

and processes based on the ideas associated with such rubric as "non-Euclidian," "asymmetric," "chaotic," "material," "post-natural," and so forth, proceeding especially along the lines of speculative realism. Specifically, I shall propose that the art objects I create and invent originate from the specific temporal structures and an architectonic of my own intuitions. I want to suggest that my paintings and drawings as they were created did not only exist as physical objects in the space and time of the world that I see and touch but also doing their creation they had a virtual existence as mathematical objects within my own intuitions. What I mean by this is that [...]

Arkady Plotnitsky, Purdue University
Mathematics and Experimentation in Art, Philosophy, and Mathematics and Science: Riemann, Kandinsky, Heisenberg, and Deleuze and Guattari
In their What is Philosophy? Deleuze and Guattari define thought, the true thought, as a confrontation between the mind, indeed the brain, and chaos. At the same time, however, they see chaos not only as an enemy but also a friend of thought, even its greatest friend and its most important ally its yet greatest struggle, that against opinion, the ultimate enemy of thought, and enemy only, paradoxically by because opinion always attempts to fully shield us from chaos, rather than compel us to enter a cooperative, thought-creating, confrontation with chaos. "The misfortune of people comes from opinion," Deleuze and Guattari say. They further argue that philosophy, art, and mathematic and science are our, even, again, our brains' primary means of this cooperative confrontation with chaos and of the struggle against opinion. This confrontation takes a specific form in each of these endeavors and disciplinarily defines each field—by creating concepts and planes of immanence in philosophy; by creating of affects and planes of composition in art; and by creating functions and propositions, and planes of reference in mathematics and science. And yet, as Deleuze and Guattari recognize, albeit not quite to the limits to be pursued in this paper, the interrelationships among art, science, and philosophy appear to be equally significant to thought even within each field, which compels philosophy, art, and mathematics and science mix their respective ways of thought just listed even within each field. The aim of this paper is to explore, again, reaching beyond Deleuze and Guattari's analysis, these interrelationships in four specific cases—that of Riemann's (non-Euclidean) geometry based on his concept of manifoldness, Wassily Kandinsky's (early) abstract paintings; that of Werner Heisenberg's creation of quantum mechanics; and that of Deleuze and Guattari's understanding of philosophy as the invention of new concepts. In all of these [...]

Sha Xin Wei, Concordia University
"Il y a" as a propositional adventure and a membrane installation
One question raised by our panel is the subtle, non-isomorphic relation between art and mathematical practice as well as art and mathematical objects. I pose mathematical and art practices as "modes of articulation" as alternatives to representationalist or telementationalist languaging -- to borrow Roy Harris' notion. I tease out family likenesses between mathematical and art practices in a particular case, recognizing that they are not twins, nor even siblings. One should not expect a piece of mathematics to map neatly onto a piece of art, or vice versa. Mathematicians are not scientists, because their theorems do not claim anything about the 'real world.' Therefore they do not write under the sign of empirical truth. Mathematicians prove theorems true or false within propositional systems that they themselves construct. Therefore their constructions are works of imagination. Writing neither under the sign of truth nor of

fiction, mathematicians create truths via imaginative processes that can be regarded as poetic processes. This poetic process is a propositional questing, to borrow Stenger's characterization of Whitehead's philosophical style. I'll trace this propositional process in the braid of conceptualizing and making an installation called "Il y a" -- a double-sided video membrane with 12-channel audio that transmutes what one sees of the other side of an opaque screen. (http://vimeo.com/tml/ilya)

Session 3 (K)
Collage I: Embodied Anxiety and Social Transformation
Chair: Michael Filas

Collage and related forms of combination in all media have been among the most important strategies of creativity for the past 100 years. And it's not going away. By extension what is the SLSA conference if not one great intellectual collage. Isn't it the juxtaposition of speakers and ideas that gives this event its special meaning? Today we have a stream of 3 panels that will address collage from both individual creative perspectives and more general philosophical, historical, and methodological approaches. In the first panel three visual artists working in varied media discuss their own creative works, contexts, and methods. Each panelist's topic also engages with issues of identity transformation in contexts such as embodiment, gender, and place in history.

Jeremy Newman, Stockton College
Living Things: Gender & Science in B-movies
Living Things critiques the depiction of gender and science in Cold War era B-movies. In these films, women are victimized as science goes horribly awry. Yet, representational violence is veiled by absurdity. This experimental video highlights the cultural anxieties, shifting gender roles and scientific progress, which fostered these representations. The films Shock (1946), The Wasp Woman (1959), and The Brain That Wouldn't Die (1962) are cautionary tales that meld superstition and representational violence, depicting women as human guinea pigs. A psychiatrist in Shock uses insulin shock therapy to torment a war veteran's wife. The Wasp Woman features a cosmetics innovation that transforms an aging woman into a deadly wasp. A surgeon keeps his wife's severed head alive against her will, as he stalks potential body donors, in The Brain That Wouldn't Die. Whereas all three films are apprehensive of technological advancement, they rely on the latest motion picture apparatus to tell their stories. My collage film relies on technology (primarily nonlinear editing software) as well while splicing and reassembling their footage. The transplantation narrative in The Brain That Wouldn't Die echoes this collage process. Living Things is a theoretical work that interrogates these texts by situating them in new representational patterns. In my video, mad doctors subjugate women through quasi-scientific experiments. However, I subvert these depictions with additional film clips from the era that illustrate the socio-political sphere. Further, I intercut original digital video with the appropriated B-movie clips in order to create a layered narrative infused with universal themes.

Rachel Fujita, University of Idaho
MemoryscapeHybrid // Panoramic Landscapes: Examining relationships between memory, identity and space
This exhibition session will focus on MemoryscapeHybrid, a 3-channel video installation that explores the relationship between memory, identity and space through composite panoramic landscapes. Long Description: A memoryscape is an immersive spatial environment that converges various concentrations of interrelated places, events, people and objects. The conceptual development of the memoryscape has been strongly influenced by both Raul Ruiz's theories on shamanic cinema, as well as the artist's ongoing visual studies driven by dream worlds and the environment's affect on one's identity. MemoryscapeHybrid is a 3-channel video installation consisting of various composite panoramic landscapes, composed of two or more distinctive locations that have influenced the artist's identity. Each composite presents the viewer with questions regarding the relationship between memory, identity, and space. The use of montage techniques, coupled with the panoramic nature of these memoryscapes, allow the addressing of the multitude and range of personal narratives tied to specific geographical locations. The landscapes we encounter throughout our lives capture a rich narrative, while preserving the history and relevance of significant moments in time that influence the story. These MemoryscapeHybrids allow the viewer to reflect upon the mise en scène of a memory. The juxtaposition of varying geographical, social, cultural and economical elements in a single image encourages the examination of the role that environment plays in self-identity and positioning in a cultural and social context.

Session 4 – Friday 11:00am-12:30pm

Session 4 (A)
Affect and Ecology in the Nineteenth Century
Chair: Allison Dushane

Perhaps the most important trend in literary criticism in recent decades has been the emergence of literature and science as a subfield. Within British Romantic studies, this trend has coalesced around key concepts—most notably, nature and affect. Recent work by ecocritics such as Timothy Morton, Ashton Nichols, and Theresa Kelley has exposed Romantic literature's debt to nineteenth-century scientific, medical, and philosophical discourses. Meanwhile, Richard Sha, Adela Pinch, Thomas Pfau, and others have fruitfully applied cognitive science and affect theory to the study of Romantic texts, changing our view of emotion and its relationship to thought and action. Now, more than ever before, we are poised to recover the emotions of Romantic environmentalism—to consider affective stances towards nature not as hopelessly naïve or escapist but as generative of ecological thinking.

Sarah Weiger, University of Portland

"A route of evanescence": Phenomenophilia and Romantic Natural History
In The Hummingbird Cabinet: A Rare and Curious History of Romantic Collectors, Judith Pascoe describes the appeal the hummingbird had to European naturalists of the late eighteenth-century. Hummingbirds, Pascoe explains, are native only to the Americas, so the mesmerizing beauty of their flight was unrepresentable in European collections limited to dead specimens; while the colors of their specimens shone in prominent displays, they never did so with the vibrancy of life. By contrast, the poems and letters of many Romantic natural historians and writers succeeded in describing the lives of their natural subjects and also in describing the affective experience of witnessing those lives. Unlike eighteenth and later nineteenth-century forms of natural history that considered the natural world as a set of discrete objects and species available for collection and cataloguing, these accounts valued specific and unrepeatable events and experiences in the natural world. The enthusiasm of Romantic naturalist-writers for these moments is akin to what Rei Terada has named "phenomenophilia." Terada defines phenomenophilia as the cultivation of "particularly ephemeral perceptual experiences" that "figure the possibility of fleeting relief from the pressure to endorse what Kant calls the world 'as is.'" In this paper, I focus on brief but enigmatic moments in the work of Romantic writer-naturalists on both sides of the Atlantic that record the affective experience of perceiving and recording natural phenomena that seem both unearthly and untimely: as Dorothy Wordsworth put it, these episodes are "something more than natural."

Seth Reno, Wittenburg University
Rethinking the Romantics' Love of Nature
In this paper, I consider the troublesome concept of love—troublesome because, like the concept of nature, it spans the material and the ideological, the scientific and the philosophical. Drawing from a range of sources, I argue that the interconnectedness of the natural world provides Romantic writers with an aesthetic model for envisioning a complex theory of love that leads to what various scholars call ecological thinking. I'm especially interested in what Timothy Morton calls "the ecological thought," that is, the act of seeing that everything is connected in "a vast, sprawling mesh." Thinking ecologically leads to "ecological love," which Morton defines as a "decision to look after all sentient beings." Thus, we have the moves that Wordsworth makes in "Tintern Abbey" from his own subjective experiences and love for his sister Dorothy to an acknowledgment and embrace of "A motion and a spirit, that impels / All thinking things, all objects of all thought, / And rolls through all things." But ecological love means loving everything; it means embracing the interconnected mesh of existence in which the boundaries of individual beings and identities break down—and this isn't really love as we typically conceive of it. But it was for the Romantics. Whereas Morton sees a tinge of "evil" in the exclusionary nature of love, I argue that Romantic poets successfully ground ecological love in individual, subjective experience. In other words, the exclusivity of love dissipates through love of nature, but that ecological love requires the exclusivity that it negates.

Allison Dushane, University of Arizona
Reverie and the Life of Things
This presentation puts Romantic-era accounts of reverie by Jean-Jacques Rousseau, Erasmus Darwin, and William Wordsworth into conversation with Henri Bergson's theory of intuition in his 1907 Creative Evolution in order trace the aesthetic genealogy of current trends in ecological

thought. I begin with Rousseau's formulation of reverie as a "state of the soul" in his Reveries of a Solitary Walker and Erasmus Darwin's discussion of reverie as a state of the body in his two-part medical treatise Zoonomia before moving to William Wordsworth's claim that an "eye made quiet" and "the deep power of joy" enable the human to "see into the life of things." Bergson argues that in order to foster a full engagement with life, human beings must turn to intuition, a mode of perception blocked by the tendency of humanity to rely on the analytical intelligence that defines humanity as homo faber. Romantic-era formulations of reverie and Bergson's theory of intuition, then, both work through in a productive tension with Enlightenment methods of instrumentalism and rationality to theorize alternative models of subjectivity, articulating a passive form of agency that has recently come to the forefront of discussions of engagement with the environment in thinkers such as Gilles Deleuze, Bruno Latour, and Jane Bennet. I argue for reverie, which is ostensibly based on a retreat into the self, as one of many Romantic-era formulations of affective and aesthetic engagement with material nature that open up new possibilities for conceiving of human action.

Lisa Ottum, Xavier University
Romantic Ecology and the (Un)sustainable Affects of Reading
Among Romanticism's profoundest legacies is our present-day ambivalence toward mediated natures. Of particular interest to Romantic-era philosophers, poets, and scientists was the affective economy surrounding reading: thinkers including Adam Smith and William Wordsworth probed the mechanisms through which print generates feelings, and how feelings generated by texts might be channeled toward productive ends. While our understanding of Romantic ecology and the Romantics' interest in sympathy has been enhanced immeasurably thanks to developments in literature and science, the intersection of these phenomena is less well-explored. I argue that this is a problem partly because Romantic-era debates about reading and affect redound in surprising ways on the present-day discourses of environmental education. On one hand, proponents of experiential education see print—and indeed, media of any kind—as a frustrating obstacle to direct contact with nature and the pro-environmentalism sentiments thought to emerge from such contact. On the other hand, some educators worry that mediated natures heighten students' emotions in dangerous, unpredictable ways. The language of pathology experts employ is noteworthy, for it reflects a broader mistrust of mediated natures that, I argue, we have inherited from the nineteenth century.

Session 4 (B)
Gender & Constructions of Science
Chair: Deborah Forteza, Notre Dame

Manuela Fernandez Pinto, University of Notre Dame
The social construction of ignorance in commercialized science: Agnotology's challenge to philosophy of science
The end of the Cold War saw the consolidation of a new regime in science organization, broadly characterized by the commercialization and privatization of science. Focusing on the mechanisms of ignorance production, the recent literature in agnotology has been a fruitful

approach for understanding the social and epistemological consequences that emerge in commercialized science today. More specifically, agnotology has fostered the study of the social construction of ignorance as an active construct or strategic ploy, according to which ignorance is a manufactured product. In this way, agnotology has challenged the traditional conception of ignorance as a natural vacuum that needs to be filled, and instead has introduced the post-natural conception of ignorance as social construct. The innovative perspective of agnotology has contributed to achieving a more complex understanding of the mechanisms of agnogenesis that operate in current scientific research, in cases such as the tobacco industry's support of cancer research, the oil industry's support of climate science, and the pharmaceutical industry's medical research (Michaels 2008; Oreskes and Conway 2010; Proctor 2012). In the paper, I explore the challenges that agnotology's study of the social construction of ignorance in commercialized science poses for philosophical conceptions of scientific knowledge, even for the more socially concerned approaches in philosophy of science that have emerged in the past decades (Kitcher 2001, 2012; Longino 2002). I argue for a philosophy of science that faces directly the agnotological challenge, acknowledging the epistemological and political dimension that the social construction of ignorance entails. In particular, I suggest that feminist philosophers of science, who have faced similar challenges, can make important contributions to this debate.

Carol Colatrella, Georgia Institute of Technology
Women's Collectives and the STEM Pipeline in Recent British Television Series
Until recent decades, histories of women in scientific and technical fields have generally emphasized exceptional cases of women such as Maria Mitchell, Rosalind Franklin, Lise Meitner, Barbara McClintock, and Esther Dyson who persisted and succeeded in making important contributions to their fields despite the challenges of cultural sexism and discriminatory professional practices. However, visual narrative representations of women's successes in scientific, technical, engineering, and mathematical (STEM) fields more often explore the power of female collectives in providing the resources necessary for women to persist and to advance in periods and places where women are not expected or much supported as professionals, much less STEM professionals. Many television crime and medical dramas represent women and men working in collaboration by combining their diverse technical and social skills. In this paper I will compare representations of women's collectives in two twenty-first-century British dramatic series, Call the Midwife and The Bletchley Circle, which are set in post-World War II London. I am particularly interested in looking at how the women (respectively midwives and codebreakers) in each historically-based series rely on the support of their peers and advisors to cope with professional and personal difficulties, how female characters develop new capacities, and how the midwives and codebreakers manage to help others in even more difficult circumstances. My analysis will also discuss the narrative strategies employed in these historical series, which are structured to explain 1950s sex roles and sociocultural circumstances to contemporary audiences.

Mita Choudhury, Purdue University
 "Karachi, Lae, Love": Women, Science, and the End of History
The purpose of this paper is to draw attention to and to describe select letters of two women, Lise Meitner and Amelia Earhart—letters which reveal two very different prospects for the future and impetus for action. The George Palmer Putnam Collection of Amelia Earhart Papers (at Purdue

University) contain several letters that provide evidence of Earhart's preoccupations, concerns, and plans leading up to the fateful flight over the Pacific when her plane disappeared. For instance, an RCA Communications radiogram dated June 16 1937 (new ID number b4f58i1) captures the vastness of Earhart's experimental field, her planned flight from Pakistan to Papua New Guinea. Niels Bohr's letter to Lise Meitner in the spring of 1938, likewise, was an invitation for travel, for her to give lectures at the Physical Society as well as the Chemistry Association in Copenhagen, both of which would pay for her passage and additional expenses. The latter was a ploy to get Meitner out of Germany and the former was Earhart's stubborn insistence on flying, unfettered, despite the danger described in the letter to her husband thus: "Please know I am quite aware of the hazards of the trip. I want to do it. Women must try to do things as men have tried. When they fail, their failure must be but a challenge to others" (New ID Number b4f49i1). The Putnam Collection and Meitner's diary—two sizeable narrative compendiums generated by women in science and technology-- provide us with archival repositories not only of "lives" or indeed accomplishments but also of communications, community, and collaboration in scientific circles in the US and in Germany between the wars. I argue that the premise and specific features of these communications (letters, diaries) anticipate postmodernity despite the absence of self-reflexivity and the crisis associated with the "end of history."

Session 4 (C)
Creative Explorations of the Natural and the PostNatural
Chair: Karl Zuelke

Animals, plants—life on Earth—have always offered inspiration for human creativity. This panel will bring together written work in poetry, fiction and non-fiction, along with the artistry of video and the collaboration of an artist and scientist who work with the image-creating potential of the living cells of plants. Domestication, the hunt, death and decay, ecological calamity and succession, the manipulations of a biological palette: These works collaborate to underscore the enduring influence of life and the study of life—both natural and postnatural—on the art-making impulse.

James Barilla, University of South Carolina
Bestiary for a Wired World
Recently, the Defense Department announced the retirement of the trained dolphin squad that once helped detect and defuse undersea mines. Aquatic drones will now perform their dangerous work, a development I welcome with a niggling sense of apprehension. Yes, the drones will keep dolphins out of harm's way, but their retirement is yet another reminder that we are fast approaching a milestone in the long saga of interspecies relations. Siri may seem primitive and ineffectual now, but imagine how quickly "she" will evolve into a pocket-sized companion who not only heeds our commands but responds to us personally, as if anticipating our feelings. At some point soon, Siri will meet Paro, the robot clothed in the cuddly fur of a baby seal, currently serving as a surrogate pet for the elderly in nursing homes. Companionship and convenience: how can we resist? And assuming we can't resist, how can we keep our ties to the animal world,

even as our technology grows ever more efficient in fulfilling our needs and the lines between technology and biology begin to blur? These questions of technology and domestication will be the subject of this creative nonfiction piece.

Karl Zuelke, College of Mount St. Joseph
Falls of the Ohio
Christine has always been intimidated by "the gears turning through Charles's mind." But on a walk through magnificent Devonian fossil beds during the Fossil Fest, she sees her boyfriend in a new light, and Christine comes to a new understanding of death, life, and life's ancient past. "Falls of the Ohio," a short story, addresses issues of biology, paleontology, death and decay, and science and fundamentalist religion (all in the context of a decaying relationship).

Cheryl Fish, Manhattan Community College
How Does Trauma and Regeneration in Natural Disaster Mirror and Provide Insight into Man-made Disaster?
In poems and in short fiction, I explore the impact on non-human nature at Mount St. Helens Volcanic National Monument thirty years after the blast of 1980 covered the Pacific Northwest in ash and eradicated forest and a number of species. In the poems, I compare the destruction surrounding the volcano with the aftermath of 9-11 in lower Manhattan where I live and work. I draw upon conflict of interest that take into account spiritual, scientific and commercial interests. My short story "Disturbance Zone" features a gathering of scientists who study the aftermath of the Mount St. Helens eruption and is told from the point of view of a videographer who documents their work. A divorced, alcoholic mom who spent her childhood in a cabin not far from the volcano, Lori is drawn to one of the scientists, an archaeologist for the state of Alaska who unearths remains in volcanic debris.

Margaret Dolinsky, Indiana University
Teaching Plants to Paint
This presentation will describe how a non-human, organic life form can react to art and become itself a piece of art. This non-destructive process allows the imagery to grow within live leaf structures. The movement of chloroplasts adapts to the patterns introduced by human generated artwork and in turn incorporates its design within its own internal leaf structure. A virtual reality artist, working with a noted biologist, shares their collaboration which has encouraged a photosynthetic medium for art.

Session 4 (D)
Postmodern Choices, Postmodern Impossibilities: Narrative, Structure and Environment in Game Worlds
Chair: Rebecca Perry

A player's passage into a game world is structured by nested ecologies of hardware and software, visual environments and narrative pathways. The panel will explore the interactions of game systems, narrative structures and the landscape of interactions, and their roles in constructing

player agency and engagement. As a literary form, games offer affordances for postmodern cultural play, while game environments facilitate player's construction of their own narratives.

Rebecca Perry, Massachusetts Institute of Technology
Merged Realities: Tools and the Production of the Postnatural
Tools organize experience, and the tools of animation and game production′software and hardware′are facilitating the harvesting of various aspects of reality and remapping them to 3D models. Models populating game and animation worlds are digital abstractions which have become an extension of who we are and how we see ourselves in the world. Our use of tools for fusing digital and physical realities is transforming our idea of the real and, as Sherry Turkle has described it, how we experience our ′selves′ in relation to the world (Turkle, 1995). In the transition from a more traditionally-based modeling practice to the merged-world model, what is being modeled is being redefined. No longer is it a replication or representation of a specific world reality; the model is becoming an alternate platform for hosting parts of the world (gestures, movements, textures, colors, surface and perception of depth). Animators are being transformed into harvesters of the world′s textures, which they then translate onto the model. Their expertise in capturing, manipulating and transferring the world to their models becomes a part of their professional identity as experts and as artists. For the modelers, models become not only presentations of the self in Goffman′s sense, but simultaneously presentations of other selves. The models are no longer simulations of the real but cognitive gathering points where bits of the world are wrapped around evocative abstractions.

Monica Evans, University of Texas at Dallas
Designing Narrative Ecologies for Digital Games
This paper explores the potential benefits of applying game systems design to narrative construction, in order to create a narrative ecology for digital games. The computer game is fundamentally an interactive medium that has shown great potential for meaningful, immersive narratives, although most narrative-heavy games adapt storytelling techniques from linear media, particularly literature and film. For players to have a deeper sense of agency within a game, designers need to give players as much control as possible over the game's narrative direction and outcome, while still presenting a well-constructed, highly crafted story. Game systems design is primarily used to facilitate game mechanics, such as combat, crafting, movement mechanics, or inventory management. This paper suggests that a form of narrative systems design could be used to create narrative ecologies: environments in which well-crafted stories will occur by necessity with a minimum of scripted or pre-planned events, allowing the player's desires and demands to fully shape the narrative. This method requires narrative systems to fully integrate with all other game systems, as well as present a consistent, internally coherent world that facilitates player agency throughout multiple permutations of possible outcomes. This paper will also discuss creating narrative ecologies for less common content areas, as well as briefly touching on transmedia narrative structures. Games to be discussed include but are not limited to: Dishonored, Bioshock Infinite, Tomb Raider 2013, Minecraft, Starseed Pilgrim, and The Walking Dead.

Jill Powers, Fisk University

Rapture as Metropolis: The Postmodern Steam Punk Biogenetic Engineering in Bioshock
Bioshock, an Xbox 360 and Microsoft game by Irrational Games and published by 2K Games, came into production in 2007. The game's setting in the city of Rapture, the utopian city under the sea, is very literally modeled on Fritz Lang's 1926 film Metropolis as utopian city, down to the city father and the protagonist Jack, who is actually his son, who somehow finds his way back to the cursed city and is forced, in the end, to confront his father. This Freudian plot is darker even than Metropolis' original plot of Joh as city Father and son/protagonist Freder. The plot of Bioshock is much darker, a tragedy that ends with Jack's confrontation and execution of his father, but is continued in the pursuit of the real city villain, Atlas, aka Frank Fontaine, a mob boss manipulating Jack through subliminal suggestion. Fontaine's madness is amplified by his dosed up ingestion of the biogenetic drug Adam, which rewrites DNA to acquire superhuman abilities like shock and incinerate, among others, leading to the systematic deformation and degradation of the city residents. Rapture's city father, Andrew Ryan, shows himself to be just as human as Metropolis' Joh, whose corruption ultimately led to the city's degradation, just as Rapture's degradation is brought on by the consumption of Adam. Bioshock is a steampunk gem where a postmodern twist on Metropolis combines bionics of "Big Daddy" technology with the shocking twist of biogenetic engineering, with frightening consequences.

Session 4 (E)
Beyond Biopolitics: Papers from the Society for Biopolitical Futures--Panel One: Pleasure, Ecstasy, Affect
Chair: Frida Beckman

On April 5 and 6, 2013 a group of scholars met at the Syracuse University Humanities Center for the inaugural meeting of The Society for Biopolitical Futures, supported by both the Center and by the Central New York Humanities Corridor project of the Mellon Foundation. In the words of the Center's Founding Director, Gregg Lambert, the Society is loosely modeled 'on the establishment and activities of the College of Sociology between 1937-1939. The College took as its 'precise object of contemplative activity,' according to the collective statement by its members 'the name of Sacred Sociology, implying the study of all manifestations of social existence where the active presence of the sacred is clear. It intends to establish in this way the points of coincidence between the fundamental obsessive tendencies of individual psychology and the principle structures that govern social organization and are in command of its revolutions.' Today, if there is any name that could serve to replace the sociological and anthropological notion of the 'sacred,' it is the current names of 'bio-power' and the 'bio-political.' This association has both interesting and problematic consequences, which will be the subject of the Society's collective research." This stream of sessions presents work that has evolved out of the initial meeting of the Society for Biopolitical Futures and concludes with a roundtable discussion by Society presenters on the present state of biopolitical thought and its possible futures.

Brad Evans , University of Bristol, *& Aaron Westbrook*, West Virginia University

"Atmos: Life beyond the bio-political reckoning"
Much has been written about the shift in security discourses and practices away from geo-political notions of territory to the life of populations. The advent of what is now commonly termed the bio-politics of security has provided new ways for understanding regimes of power, along with critiquing notions of territoriality as it appears in the form of "active living space". While this has provided a more nuanced understanding of the politics of (in)security, the dispositif (assemblage) at the forefront of this Foucauldian inspired approach still remains detached from some principle drivers influencing human behaviours - namely the politics of emotion properly understood through the concept of affect, along with the politics of atmosphere which give rise to certain "climatic conditioning". These gaps in our bio-political analysis become all the more apparent as we enter into an age of anthropocentric thought which proposes a move from the population centred bio-politics of Foucault to the more complex, adaptive, emergent, and radically interconnected problematic of all life itself. What becomes of the political when power shifts beyond the reckoning of the modern Bios to render the Atmos the source of our (un)making?" And how may we think in atmospheric terms such that we can move beyond the catastrophic imaginary of late liberal rule to find more affirmative reasons to believe in this world?

Frida Beckman, Linkoping University, Sweden
"Pleasure, Politics, Production: In Search for a Potential that is Missing"
Pleasure clearly constitutes a problem for contemporary biopolitical theory. Three tendencies shape contemporary thinking – a tendency toward neglecting the topic, a propensity to reject it as a politically useful category, and an inclination to reject it in favor of a new kind of asceticism intended to liberate pleasure from the biopolitical hooks of sexuality. This paper argues that what many of these readings have in common is a failure to think pleasure in any other form than through its inscriptions into economies of consumption and subjectivity. Such a failure is not surprising in a post-Marxian tradition that recognizes how pleasure is coopted by the commodification continuously intensifying in the shift from production to consumption in modern capitalist society, in a post-Foucauldian tradition that acknowledges historical deployments of pleasure, and in a post-Deleuzian framework that sees pleasure as an individual distraction and obstruction of a more productive impersonal desire. Yet, I will suggest, and even within these traditions, pleasure has a far greater potential than what tends to be recognized. By looking at the relationship between pleasure and temporality, and between quantitative and qualitative time, the paper begins to unpack some ways in which pleasure can open toward a revolutionary "now."

Richard Doyle, Pennsylvania State University
By The Grace of Gaia: Putting the `Bio' Back in Biopolitics Through Practical Technospiritual Monism
If "biopolitics" emerges when and where power takes life as an object, then it does so on the condition of any life whatsoever, which itself is always and everywhere observed to emerge from the larger scale of the whole of all living systems. Even while we nod our heads with Foucault and agree that "life itself" is an invention of modernity, so too is modernity an invention of deeply interconnected living systems that are planetary in scale: Gaia. As the major (suppressed) premise of biopolitical thought, this planetary scale unity has been, in Brian Rotman's terms,

"ghosted" through the spectacle of the very notion of "life itself" (whose archetype is the fetus) and, within the humanities, through terror before the spectre of "totalization" (whose archetype is fascism.) This talk will suggest that it is in practices that anthropologist Henry Munn called "ecstatic signification" and transpersonal ego death that the very notion of "life itself" becomes an occasion for laughter and wonder as the larger scale of ecological planetary unity comes into obvious relief. Axioms of a practical technospiritual monism for encountering this planetary reality will be offered.

Session 4 (F)
"Air as/in History"
Chair: Tobias Menely

This panel is about the elusiveness of air as an object of knowing, the representational opacity of what is transparent. It is about air as a source of energy and the atmosphere as the container into which passes the byproducts of energy production. It is about air as matter and air as sign, about instances when the atmosphere demands our attention, and about the ways in which humans have, in the past four centuries, subjected air to scrutiny and alteration. Each of the panelists is concerned with the epistemological challenge of discussing such intangible matter, which is both the primary object of our geologic agency in the Anthropocene and an elusive, vibrant, and active substance with its own historical imperatives. Befitting a discussion of air as/in history, our three panelists will each focus on a different century: Mentz on the seventeenth, Menely on the eighteenth, and Taylor on the nineteenth. Collectively, we will consider how air changes in history and how air changes history.

Steve Mentz, St. John's University
 "Winds of Shipwreck: Maritime Theology and Ecological Force in Early Modern England"
The dramatic expansion of European culture during the early modern period was driven by wind. Trade winds and less predictable local winds powered commerce, travel, and even labor, via windmills. But in excess winds caused disasters, as in the case of a "storm of winds" or a tempest. This talk explores depictions of tempests in early modern English century maritime sermons, especially John King's Lectures Upon Jonas (1594) and Robert Jackson's The Raging Tempest Stilled (1624). King and Jackson both struggle to make invisible winds transparent to religious meaning. Their attempts to read winds arrives at much the same impasses as were faced by practical sailors who wanted to know which way the winds would blow, or what to do in case of stormy weather. I'll juxtapose King's and Jackson's sermons with one of the most celebrated historical records of the Age of Exploration, the description of the wreck of the Great Galleon S. Joao off southeast Africa in 1552. This anonymous text, collected in the Historia Tragico-Maritima as an essential part of Portugal's literary heritage, forces together the technical language of practical seamanship and the theological claims of divine wisdom. Reading these texts in dialogue with each other helps generate a vibrant but chaotic understanding of the wind-human-ocean exchange system, which I'll connect to English literature in a newly materialist and theological reading of Ariel's description of the storm in The Tempest (1.2).

Tobias Menely, Miami University Ohio
"History's Atmosphere: The Matter of Air in the Enlightenment"
 "There is no need to have Recourse to occult Qualities in the Air," John Arbuthnot asserts in his 1733 Essay Concerning the Effects of Air. My talk will examine how air had in the Enlightenment come to be regarded as mundane matter, the substance not of spirit but history. This materialization of air begins, in earnest, in the 1660s, with Boyle's air-pump experiments, Hobbes's philological reflections on spiritus, and Evelyn's vivid account of London's air pollution. By the early eighteenth century, decades before the discovery of its constituent gases, air was widely recognized as a substance heterogeneous and changeable. This elusive matter offered a figure not for the ideal but for what eludes both ideational and empirical knowing. Focusing on Arbuthnot's Essay and a series of locodescriptive poems beginning with James Thomson's The Seasons, I'll be thinking, in particular, about the problem of combustion. Sensitized to air's material transmutability, writers, describing a city enveloped in smog or smoke dispersing from a chimney, were confronted with a question about what remains of what vanishes. Combustion leaves a ghostly remnant of the transformation of a solid into a gaseous vapor, a brief period of ethereal disclosure in which the air is made visible. To conclude, I'll speculate about the re-idealization of air, the return of an idea of air as what is outside history's imprint, which occurs at the end of the eighteenth century, the beginning of the Anthropocene, the geologic epoch in which human beings collectively begin to alter the atmosphere.

Jesse Taylor, University of Washington
"On Literary Barometers: Affecting the Atmosphere in Victorian Literature and Science"
Among the inventions displayed at the Great Exhibition of 1851 was a remarkable device for predicting the weather. George Merryweather's "Tempest Prognosticator" employed a "council" of 12 leeches in glass bottles. Sensing changes in atmospheric pressure, the animals would climb to the top of the tubes and trip a switch that would (had the device actually been employed) have been connected to the telegraph network. The Tempest Prognosticator highlights a complex nexus of ideas that intersect in the effort to apprehend the atmosphere as a physical substance the intangibility of which is perhaps its most salient feature. A fusion of animal and machine bodies that would have been connected to the telegraph network, itself the dominant metaphor for (and understood in terms of) the human nervous system, the instrument is perched at the intersection between the social body and the weather, long the paradigm for that which lies fundamentally beyond both society and human control. In this paper, I will place these ideas alongside the notion of literary atmosphere as a similarly material-yet-intangible quality of literary experience via Roland Barthes's invocation of the barometer in Flaubert's "A Simple Heart" in his account of the "reality effect." I will point to the intersection of Victorian notions of "sensation" and what we have come to call "affect" in order to think about what it means to inhabit a climate literally affected by human action through the atmosphere of literary texts.

Session 4 (G)
More than Companion Species
Chair: Aleksandra Hernandez, Notre Dame

Caitlin Rose Myers, University of Arizona
"I'm told I'm famous on the internet" – Henri the Cat and the Critical Possibility of Anthropomorphism
This paper examines the phenomenon of feline Youtube celebrity in the context of human/nonhuman animal interactions and the construction of the posthuman subject. Jacques Derrida's *The Animal That Therefore I Am* posits that individualization is imperative while considering the nonhuman animal and its gaze. Animals on the internet, especially cats, are hyper-individualized to the point of stardom and can thus be examined as indicative of popular culture's perception of the division between "human" and "animal." These interactions further take place in a postnatural, virtual space and are mediated through technological lenses of camera, narrative, and audience comment. Derrida uses the autobiography as an emblem of the impossibility of human self-representation, thereby complicating the relation to a nonverbal other. I argue that "Henri," or Henry, the Youtube star, presents the particularized difficulties of both human and nonhuman animals, including Derridean "nonpower," manipulation through medium (virtual or otherwise), and the performativity of identity. While Derrida explicitly derides anthropomorphism as "a moralizing subjection, a domestication," I will further argue for the critical possibilities of anthropomorphism using popular responses to the *Henri*videos alongside recent theoretical perspectives that argue for its necessity. This multimedia presentation aims to demonstrate that it is possible to draw the public fascination with feline celebrities into conversation with questions of what it means to be "human" or "animal," as well as what it means to present oneself as "being" in a posthuman world.

Timothy S. Miller, University of Notre Dame
The Post-Apocalyptic Dog: Nature and Collapse in Narratives of Man's Last Friend
As faithful companion animals more important than ever after the end of the world, dogs dominate some of the touchstone works of apocalyptic and post-apocalyptic fiction, from Harlan Ellison's 1969 novella of post-apocalyptic anomie _A Boy and His Dog_ to Paolo Bacigalupi's 2004 story of post-catastrophe transhumanism, "The People of Sand and Slag." In others, they haunt the margins: rather than play the part of humanity's last and loyal companion, the dog becomes a new source of fear. Here, a roving pack of dogs reverted to the state of nature presents a double threat to humans, one not simply involving the potential for physical violence and competition for shared resources, but also the more pressing existential threat that human civilization and culture will meet the same fate under the same conditions. In so many narratives of collapse, the post-apocalyptic dog becomes a means by which to reexamine and redefine concepts of nature and humanity itself, although the inevitable mapping of the human and the canine onto one another produces different results with different implications dependent on the authors' respective ideological agendas (a consequence that should not surprise us in that notoriously ideologically-driven genre of the tale of societal collapse). Whether they depict the dog as a faithful companion or a fearful enemy, these narratives agree that, after the end of civilization, the dog becomes the measure of "humanity"; only a few pause to imagine the fate of dogs as dogs and not in some relation to humans.

Tony Prichard, Western Washington University

Lost and Found: searching for the Automated Other in Grant Morrison's *We3* and Richard Stanley's *Hardware*

The location of animals, machines, and humans in regimes of automation involves a perpetual process of losing and finding. When faced with lost companions or misplaced devices the typical recourse involves attempting to locate others via technological means (GPS tracking chips, spirit photography, or Craigslist). The graphic novel *We3* (Morrison and Quietly) examines how this desire and the process of losing and finding automated others opens potential crises and catastrophes. In contrast Richard Stanley's much maligned film *Hardware* provides how when the lost and found item is framed as solely technological the scripted outcome involves only catastrophe. At issue in both texts is the way that each initiates events that continue the process of mourning while transforming it—whether this is mourning a lost pet or struggling with everyday realities of a destroyed ecosystem. Drawing upon Levinas, Ronell, and Kittler the project investigates examples of face-to-face with the automated Other, in the form of *Hardware's* Mark 13 and the titular team of animal-machine prototypes of *We3*. In these encounters the parts of the human, which are capable of catastrophe and were to have amputated from the human via the creation of technology have instead returned as a repressed in the form of these Automated Others. The search through this series of encounters highlights the potential of these catastrophes to inform and produce a hyper-ethical mindset by initiating a cycle of losing and finding of one's place in relationships with Automated Others.

James D. Cardin

Dogging the Artist in Crane′s The Third Violet

The emphasis in Stephen Crane′s fiction on humans as biologically determined beings, and thus as helpless victims of natural causation, often has two effects: a human loathing for its own animality and distraction from the role of humans as victimizers of other biological agents. The preoccupations of most Crane criticism has obscured other works in which he demonstrates concern for the victimhood of non-human, specifically domesticated, animals, and belief in the possibility of their possessing vibrant interior lives. I would like to use one such work, an early journalistic sketch titled 'In the Depths of a Coal Mine′ (1893), as a means for interpreting another later work, the neglected novella The Third Violet (1897), in which domesticated animals, particularly the protagonist′s game dog, Stanley, are represented to the reader as emotionally and intellectually complex agents who are disenfranchised because they are viewed by their human owners as little more than amusements or instruments of civilization. In reading The Third Violet this way, I want to suggest that Crane′s oft-ridiculed use of the conventions of popular romance is merely a way to gain an audience for his critique of what Donna Haraway has come to call the 'humanist technophiliac′ depiction of domestication in which 'the domestic animal is the epoch-changing tool, realizing human intention in the flesh′ (The Companion Species Manifesto 27-28). This then opens the Third Violet for consideration of the artist and his companion species as 'co-constitutive.′

reconfiguring sensation: sensory prostheses and the postnatural sensorium 1. positions.
Chair: Mark Paterson

'Reconfiguring sensation' considers how the sensate body has been co-constituted and reimagined through a combination of 'hard' technologies (hardware, interfaces), soft technologies (disciplinary apparatus or sensorial regimes), and more generally how scientific discoveries concerning the senses and new modes of somatic address have arisen since the original 'turn' to embodiment in the 1990s. We seek cross-disciplinary discussions of interfaces, artworks, and more generally 'aesthetic' encounters that problematize ideas of the sense 'modalities' as such. We therefore encourage examples, displays and 'walkthroughs' of such work. The panel considers issues such as: - how are sensory prostheses and technologies of sensory substitution (e.g. TVSS) reconfiguring the sensorium? - what can art-science collaborations, including digital installations, teach us about rewiring the senses or expanding our modalities? - what are the implications for the public understanding of cognition, perception, and sensation? - given the availability of biometric data collection for everyday exercise (e.g. FitBit, Nike+), what are the implications for somatosensation and our somatic imaginary? - what is 'natural' about our sense modalities anyway? - how have the senses been historically mediated through technologies that help us map our neurophysiological understanding of the body? - what effective aesthetic examples are there of mashups, remixes, reconfigurations, of senses and affects? - for those with sensory disability or impairment, how can technologies of sensory prosthesis make aesthetic experience available? - what happens 'after' touchscreens? how do other aspects of the body become implicated or addressed in the human-computer interface (HCI)?

Elizabeth Stephens, University of Queensland
Queer Sensation: the curious histories of technologies and the senses
Technological curiosities and mechanical novelties were a highly prized part of nineteenth-century popular culture. From home stereoscopes to mechanical amusement rides to popular electricity shows, nineteenth-century audiences were provided with a rapidly expanding range of amusements designed to bring them into intimate and embodied relationships with new technologies. The role of such technologies in (re)shaping perception in the nineteenth century has been the subject of much recent analysis, in studies by Jonathan Crary, Avital Ronell, Vivian Sobchack and Alison Griffiths, amongst others. This paper will examine the relationship between the cultural history of technology and the phenomenology of the senses. Curiosities like the Phantasmagoria and Vaucanson's mechanical Defecating Duck are queer things in the nineteenth- century sense of this word: marketed to an enthusiastic audience for their peculiarity and oddity. This paper is interested in whether they are also queer in the contemporary critical sense of this word: designed to provide intense sensations and non-normative bodily experiences that trouble the cultural configurations in and through which subjectivities and bodies are constituted and experienced.

David Parisi, College of Charleston
"The Doctrine of Touch": Haptic Interfacing and the Disciplining of Tactility
Interface designers, in seeking to write touch into the sensory configuration of computer

interfacing practices, often frame their work as a means of overturning and disrupting the dominant audiovisual paradigm of interacting with computers. These haptic interfaces are understood by their designers as a way to technologically evolve the sense of touch, celebrated for their capacity to initiate a revolution of the senses—a way to do for touch what photography did for the eye, and what recorded sound did for the ear. But rather than signaling the evolution of touch, I argue that haptic interfaces instead recapitulate a history where touch was constantly remolded through its interactions with modern technoscience. I show how the term 'haptic' itself developed as a result of complex and structured encounters with touch that sought to locate it within the disciplining frame of experimental science. This project of isolating, confining, fixing, and quantifying tactile processes, initiated in the first half of the nineteenth century, prompted experimental psychologists to adopt the term haptic as a neologism that designated "the doctrine of touch"—a body of experimentally-derived 'facts' about tactile processes, circulated through a network of researchers working in the then-nascent field of "the New Psychology." Rather than marking a revolution in touch, I claim that haptic human-computer interfaces ought to be understood as contiguous with a broader project of modernizing and disciplining touch, the latest in a series of interfaces strategically configured to productively challenge forth the tactile.

Mark Paterson, University of Pittsburgh
What the frog's body tells the frog's brain. On early cartographies of the proprioceptive system.
In *Problems*, at one point Aristotle questions why sensations shift within our body according to whether we walk uphill or downhill. Noticing coincidences of certain movements with muscular sensations and fatigue, but without the means of explaining in neurophysiological terms, Aristotle sought an explanation for why thighs feel strain and fatigue by localizing such sensations, arguing that the greatest pressure is felt at the center of the moving organism. An early attempt at a spatial explanation with a center and periphery, the charting of mechanisms for somatic sensations is deployed once again in a series of lectures and a landmark essay of 1907 by neurologist Charles Sherrington in terms of a "proprio-ceptive" reflex arc. After removing the cerebral hemispheres of frogs, Sherrington claimed that the total posture of the animal was regulated by this proprioceptive system. Through descriptive dissection, a series of spatial conceits are employed, from surface to depth receptors, then from body to head segments, terminating in the 'labyrinth' (semicircular canals and the otolith), the central point through which peripheral data from the limbs is routed. If, as Sheets-Johnstone has argued, what has changed since Aristotle is not the body and our experience of it, but the ways in which we conceptualize it, then this talk shows how early cartographies of the nervous system are instructive for the somatic imaginary, and considers some implications for mediations of bodily sensation.

Session 4 (I)
Knowledge Production
Chair: Qingyuan Yang, University of Notre Dame

Justin Derry, York University

Planetary Attunements: Cosmopolitics as Eco-political Knowledge Production

This paper aims to account for and compare various knowledge-producing practices that differently construct, both materially and discursively, what we know and experience as our current global, ecological condition. In this, my focus will revolve around the question of how particular knowledge-producing practices produce and map, inhabit and inhibit, different kinds of ecological narratives, attachments and relations. I will be arguing that the eco-political practice of cosmopolitics (Stengers/Latour) is a knowledge-producing and world-forming practice that accounts for our relations with nonhumans differently from other knowledge-producing practices such as biodiversity databases, computer modeling programs tracking climatic variations, and Nature documentary's. The differences in these varied knowledge-producing and world-forming practices hinge on the way they differently presuppose how the human is related to the nonhuman, the organic with the inorganic, Nature with Culture. As a diffractive, non-representational practice, cosmopolitics not only articulates a sense of the humans deep entanglement with nonhuman worlds, but also attunes or alludes to post-natural, earthly actants, such as global warming, that shape 'us' and mark 'our' worlds, while simultaneously withdrawing or receding from many of our techno-mediated, globally extended prosthetic mapping devices. Cosmopolitics is better equipped at becoming attuned to the frequencies, or the 'thing-power' (following Jane Bennett), that nonhuman post-natural actants produce in ways that many other environmental knowledge-producing technologies can't.

Adriene Jenik, Arizona State University
SPECFLIC 1.9

SPECFLIC 1.9 imagines the near-future of the public research university. The project embraces the limitless human potential made possible through computer-enabled global network connectivity even as it considers the cultural impact of new levels of access and control made possible through these very networks and protocols. SPECFLIC 1.9 asks its viewers to tease out the threads of their own present storylines to better imagine and therefore shape our shared future.

Sarah Dillon, University of St. Andrews
What Scientists Read: Evidence for the Direct Influence of Literature on Contemporary Science

This paper presents findings from the UK based transdisciplinary research project What Scientists Read. The project interviewed 20 scientists from a range of national backgrounds, including US and UK, about their reading habits from childhood onwards and the influence they perceive this reading to have on their work. Further data has also been obtained from posts on the website – whatscientstsread.com. The inspiration for the project was an interviewee for a PhD in Water and Environment Engineering who attributed her desire to work in the area of the physical modeling of flow and sediment dynamics to having read A. A. Milne's Winnie the Pooh as a child: always losing to her brother when playing poohsticks led to her fascination with water flow. This is an example of direct influence of literature on science, and this paper presents further examples of direct influence that we have uncovered in the interviews. The paper, argues, however, that even in such apparently simple cases, where the scientists themselves can identify cause and effect, it is more productive to explore what the scientists learn from the literature they read, than to approach their answers solely through the paradigm of "influence". The paper

proposes that new theory about, and analysis of, the influence of literature on science can be developed by abandoning the influence approach in favor of an epistemological one. Inspired by Lorraine Daston and Peter Galison's Objectivity, this paper proposes that a new evidence-based case needs to be made for literature's epistemic virtues.

Session 4 (J)
Academic Game Research
Chair: Frances L. Van Scoy

Academic game degree and certificate programs are proliferating. Some of these programs emphasize technology: graphics, animation, game AI. Possibly fewer have, at the graduate level, a strong research component. What are the current and future states of academic game research?

Frances L. Van Scoy, West Virginia University
An Overview of Academic Game Research
What is the current state of academic game research? What general problems are being studied? What are the major journals, conferences, organizations, and funding sources for academic game researchers from a software background? Where is academic game research heading? What are some important problems that don't appear to be solvable currently because of limits of technology?

Jason Hawreliak, University of Waterloo
First Person Scholar: The Space Between Game Journals and Blogs.
Game Studies currently finds itself essentially bifurcated. On the one hand, academic books, journals and conferences on gaming continue to proliferate; these are still the spaces for sustained, "long form" conversations. However, the field has largely rejected conventional academic publishing practices, since they are simply not sufficiently equipped for handling such a fluid and dynamic field. By the time an article or book chapter finally reaches an audience, its subject matter may already be obsolete, or no longer immediately relevant. Thus, on the other hand, most of the critical discussion now takes place in alternative discursive arenas, such as gaming sites, personal blogs, and Twitter. These spaces address the problem of immediacy and allow for real-time, dynamic conversations. However, they also often lack academic rigor, and can quickly devolve into "soft" journalism. First Person Scholar, a recently launched online Game Studies periodical, attempts to bridge this gap between academic and "popular" games criticism. It aims to provide the critical context and nuanced analysis found in academic journals, while at the same time providing the timeliness and accessibility of blogs and social networking sites. All potential contributions are peer-reviewed by an editorial board, but because submissions are relatively short--2,000 words--turnaround times are quick, and so authors are able to participate in the conversations as they are actually happening. After discussing First Person Scholar, the paper concludes by turning its attention to possible future directions, drawing on several examples of authors who have turned to "hybrid" models of game criticism.

Kyle Moody, University of Iowa
Modded Together: How the Steam Workshop and Skyrim Nexus Represents an Ecology for Modders
The concepts of immaterial labor, participatory content creation and online communities are found in the video game industry through "modders," defined as users of software and video games who modify game content. Mods represent a valuable source of low-risk innovation and experimentation within the games industry. Principles of modding inform the use and implementation of social media as users create, distribute, and remix content across a variety of platforms, and these modders also create communities through their practices. The sustainability of modding communities represents an example of the changing nature of media work for many industry professionals and non-professional media users transitioning to more participatory forms of cultural-industrial production. I explored how select groups of modders of popular role-playing game The Elder Scrolls V: Skyrim were structured on popular mod distribution and news channels Steam Workshop and Skyrim Nexus. Using ethnographic field methods adapted to internet sites, along with textual analysis, I gathered data from multiple modders on separate examples of modding activity. Results suggest that by allowing and encouraging modders to share their creations via the Steam Workshop and other distributors, Bethesda has created a way for these modders to form a sustainable collective of sorts through user-generated content and dissemination. In addition, news sites such as Skyrim Nexus balance out the community by offering groups of "lead users" who collectively identify and exploit opportunities to improve the way Skyrim works through their own practices.

Session 4 (K)
Fluxus and the Intersections of Art, Science and Technology
Chair: *James W. McManus*, California State University at Chico

 Fifty years ago, in 1963, George Maciunas released his Fluxus Manifesto into the world. For him, Fluxus had the potential to "purge the world of bourgeois sickness [and] promote a revolutionary flood and tide in art." What followed Maciunas' declaration were acts of poetry, performance and object making--almost all of which aimed to integrate art into life in ways that were informed by the Dadaists and Surrealists before them. One of the most interesting ways in which Fluxus artists integrated art and life involved the incorporation of science and technology. Maciunas, for example, was deeply interested in technologies of learning, and artists like Nam June Paik and Joe Jones made work that deployed electronics and motorized components. The *Grove Encyclopedia of Art* wrongly claims that Fluxus' lifespan stretched from the early 1960s to the late 1970s. On the contrary, as the name suggests, Fluxus continues today as an open and vital force affecting flow between art and life. In addition to papers on Fluxus itself, we have included contributions that consider the influence of Fluxus on other artists who engage science and technology in their work.

Hannah Higgins.

The Counterculture in Ma Bell's Kitchen
As the Director of the Research Division at Bell Labs Research Laboratory, in the early 1960s John R. Pierce partnered with a band of unlikely collaborators, resulting in early experiments in dance, graphics, animation and musical composition. Each of these experiments required collaborations between artists and scientific researchers working daily at the center of Cold War technological innovation. In contrast, all of these artists were working in the countercultural and avant-garde context of New York City in the 1960s, which included Fluxus, Happenings, experimental music and Judson Dance Theater. With Pierce's support, James Tenney would work in psychoacoustics and early computer music. Computer display researcher, Ken Knowlton, worked with renowned filmmaker Stan VanDerBeek. Engineer Michael Noll partnered with the erstwhile inventor of video art, Nam June Paik, and developed early animation. Cyberneticist and graphic researcher, Leon Harmon, worked with the dancer Deborah Hay to make early computer graphics, a task also of interest to the Bell Labs physicist, Manfred Schroeder. These collaborations have been explored separately in Higgins co-edited anthology with Douglas Kahn, *Mainframe Experimentalism*. However, this talk attempts to work across these projects in order to understand the culture of Bell Labs that made them collectively possible by asking, what was in it for them?

Owen Smith, University of Maine
Hank, Mary and Dick: A Consideration of Computers as an Exemplativist Art Practice in the Work of Dick Higgins
Working in collaboration with the musician and programmer James Tenney, founding Fluxus member Dick Higgins produced the modular poem "hank and mary, a love story, a chorale for diter rot." Working with the programming language Fortran IV Higgins and Tenney realized a poem that is a four-column permutation of the four words "hank," "shot," "mary," and "dead." Run on +3/10/1967 the computer took 1.64 minutes to generate 625 combinations of the four words in a four-column layout. This Paper considers this poem in the broader context of Higgins developing aesthetics and specifically considers how this work is a physical manifestation of an attitude about art making; an aspect that recontextualizes creativity as a non-essentialist mode of pattern generation and can, and should, been seen as an important precursor to current discussions concerning the nature of creativity in a digital world. The significance of this poem is more than just a historical footnote as an early exploration into the use of computers in the arts. Instead, the use of the computer for the creation of this work marks a significant departure from the more typical understanding of computers and art in the mid and late 1960s. Instead of emphasizing more "standard" views" of computer as technology Higgins recognized and made use of the computer as a means for processing and manipulating information and most importantly as part of a system for interrogating the nature and function of paradigms. In his own early explorations of the use of computers Dick Higgins understood a crucial point about their potential, they were not the ultimate expression of centralized control, but they offered just the opposite, the greatest possibility for freedom for creativity through decentralization.

Roger Rothman, Bucknell University
Against Critique: Fluxus and the Hacker Ethic
This paper argues that key aspects of Fluxus have a striking resemblance to the ideas and antics of the computer hackers who, in the sixties and seventies, defined the culture of MIT's Artificial

Intelligence lab. The past several decades have seen the rise of a rich body of scholarship on hackers and the cultural critique that their practices imply. By relating what has become known as the *hacker ethic* to the works of the Fluxus artists (who likewise practiced in the sixties and seventies), this paper argues that Fluxus deserves to be understood not as a late manifestation of dada or the inchoate prefiguration of conceptual art and institutional critique, but rather as the first avant-garde movement fit to the age of electronic information and their network protocols. It argues, for example, that the Fluxus warehouse and mail order system that George Maciunas developed to enable the sale of various Fluxus scores, objects, and kits is best understood as a hack of the international mail delivery system. Like the vast majority of Fluxus objects and performances, Maciunas' mail order operation makes no explicit use of the emerging electronic technologies and their network systems; it nevertheless deploys many of the fundamental structures that shape those technologies. Moreover, it draws upon the same utopian vision and expressive politics that drove the computer hackers for whom these technologies were the source of new modes of production and social exchange.

Popu-up Sessions 1:00-1:45

Postnatural in-vitro meat
with Orrin Catts & Elizabeth Stephens.
Video installation and some relics covering SymbioticA's 2003 growing and eating of the in-vitro Frog "steaks" that will serve as a starting point for discussion of in-vitro meat today.

Documentary on Fluxus
with Jeffrey Perkins & James W. McManus.
Viewing of Jeffrey Perkins's film *George* in progress about the life of Fluxus' founder George Maciunas and conversation with the director.

Session 5 - Friday 2:00pm-3:30pm

Session 5 (A)
Mapping the Great Lakes: Computational Visual Analysis, Cartography, and Climate History, 1680-1850
Chair: *Lucinda Cole*, University of Southern Maine

This project brings together different contributors to our ongoing project, initially funded by an NSF/NEH Digging into Data Grant and a Fellowship at the Institute for Advanced Computer Applications and Technologies. Our research has focused on a computational analysis of distinguishing features of 17th and 18th-century maps of the Great Lakes region: the overall project uses image analyses of a large data set- 400 maps--to allow cartographers, environmental historians, and climatologists to explore previously unexamined connections between map-

making and contemporary depictions of short-term weather patterns and longer-term climatological conditions at the end of the Little Ice Age (c. 1680-1850). These maps, we suggest, encode both short-term meteorological and long-term climatological data in the form of variations in depictions of coastlines and islands. We have identified significant environmentally and climatologically sensitive areas, notably the northern lobe of Lake Huron, where variations, detected by computational analysis, suggest that ice cover and rising lake levels altered the hydrology of Georgian Bay and Manitoulin Island and consequently the representation of the lake. The papers on this panel will explore the implications of these results from different perspectives: the significance of computational visual analysis for studying climatological change; the environmental history of the region; our understanding of wildlife populations and the fur trade; and new ways of thinking about the digital humanities.

Robert Markley, University of Illinois at Urbana-Champaign
Climatological Analysis and the Cartography of the Great Lakes
This project brings together different contributors to our ongoing project, initially funded by an NSF/NEH Digging into Data Grant and a Fellowship at the Institute for Advanced Computer Applications and Technologies. Our research has focused on a computational analysis of distinguishing features of 17th and 18th-century maps of the Great Lakes region: the overall project uses image analyses of a large data set- 400 maps--to allow cartographers, environmental historians, and climatologists to explore previously unexamined connections between map-making and contemporary depictions of short-term weather patterns and longer-term climatological conditions at the end of the Little Ice Age (c. 1680-1850). These maps, we suggest, encode both short-term meteorological and long-term climatological data in the form of variations in depictions of coastlines and islands. We have identified significant environmentally and climatologically sensitive areas, notably the northern lobe of Lake Huron, where variations, detected by computational analysis, suggest that ice cover and rising lake levels altered the hydrology of Georgian Bay and Manitoulin Island and consequently the representation of the lake. The papers on this panel will explore the implications of these results from different perspectives: the significance of computational visual analysis for studying climatological change; the environmental history of the region; our understanding of wildlife populations and the fur trade; and new ways of thinking about the digital humanities.

Christopher Morris, University of Texas at Arlington
Ice Flows and Water Levels: A Historical Hydrology of Georgian Bay
This project brings together different contributors to our ongoing project, initially funded by an NSF/NEH Digging into Data Grant and a Fellowship at the Institute for Advanced Computer Applications and Technologies. Our research has focused on a computational analysis of distinguishing features of 17th and 18th-century maps of the Great Lakes region: the overall project uses image analyses of a large data set- 400 maps--to allow cartographers, environmental historians, and climatologists to explore previously unexamined connections between map-making and contemporary depictions of short-term weather patterns and longer-term climatological conditions at the end of the Little Ice Age (c. 1680-1850). These maps, we suggest, encode both short-term meteorological and long-term climatological data in the form of variations in depictions of coastlines and islands. We have identified significant environmentally

and climatologically sensitive areas, notably the northern lobe of Lake Huron, where variations, detected by computational analysis, suggest that ice cover and rising lake levels altered the hydrology of Georgian Bay and Manitoulin Island and consequently the representation of the lake. The papers on this panel will explore the implications of these results from different perspectives: the significance of computational visual analysis for studying climatological change; the environmental history of the region; our understanding of wildlife populations and the fur trade; and new ways of thinking about the digital humanities.

Session 5 (B)
Rewriting the Human in the Anthropocene
Chair: Kate Marshall, Notre Dame

Christian Hummelsund Voie, Mid Sweden University
Writing the Anthropocene: The Material Turn in Contemporary Nature Writing
Just as Sverker Sörlin has identified Anthropocene societies – societies characterized by the fact that humans are refashioning the entire system of the world, this paper will argue that we should now also begin to talk about how contemporary nature writing is characterized by the scale of human interference too. This paper argues that just as the age of the Anthropocene is changing the way we think about nature, it is also fundamentally affecting the way nature writers write about it. It is the hypothesis of this paper that the Anthropocene shifts the foci of nature writing from being a mainly "visual" genre. Though the genre has insisted on the material reality of nature, it must now commit to this stance, and explore its implications, in a manner it never quite contemplated before. We are seeing both the landscapes of nature writing, and the nature writer him/herself being rewritten. The nature writing landscape is now becoming a viscously porous place where both beneficent and harmful material fluxes and flows wash across the porous boundaries of animal, plant and human cells. Just as the landscape of nature writing becomes much more than a site for contemplative retreat, so the nature writing subject becomes a different being from the somewhat disassociated individualist immersed in soulful pursuits in the "untouched" wilderness. The post-natural and material turns morph the nature writer from Emerson's transparent, observing eyeball into a state of fraught embodiment, and almost everything about the genre is subtly changed.

James Pulizzi, University of California at Santa Barbara
The Iconocene
With the beginning of the Anthropocene, history, as the narrative succession of human (cultural) events, ends thanks to humanity's new found ability to effect change not only to their cultures but to the natural world on a global scale. The melding together of so-called cultural and natural histories, however, gives too much credit to Homo sapiens as actors and too little to control technology and technical media. These techniques have it made possible for mere humans to organize the complex, international economic and material networks that have made greenhouse gas emissions, deforestation, strip mining, and other environmental calamities feasible and possible. Without the same information processing machines, we would not even be able to

design and compute the models that reveal climate change is occurring. Indeed, the two histories—one of human culture, and another of the natural world—have both gone extinct in the face of a new force for understanding and organizing the world. Dipesh Chakrabarty's 2008 article explains why the two histories are no longer sufficient on their own but ignores the technical factors driving their obsolescence. History as a narrative of human affairs and as an evolution of natural, geological environments has been replaced with mathematical and computational models that rely not on integrated narratives (whether cultural or biological) but on discrete atoms of information. The world is no longer historical or natural but a collection of simulations generated by computing machines. We live in what Vilém Flusser called the age of technical images. The end of history does not bring the Anthropocene but the Iconocene—the era of the new (-cene) image (eikon).

Melody Jue, Duke University
Considering Water: The Anthropocene and Media of Planetary Memory
This talk considers the terrestrial basis of (human) thought in formulations of memory, history, materiality and inscription. I specifically look at discourses of the Anthropocene and how these multiple stories both reflect a terrestrial orientation to history/memory, and also challenge it by bringing our attention to the historicity of earth's waters and air. No longer the elemental, pure "primitive reverie" that Bachelard wrote of, oceanographic studies of processes like ocean acidification suggest that the chemical composition of (sea)water itself is changing. Rather than considering water as that element which, on the border of life and death, erases or escapes history, water itself might now be considered 'historical' through in relation to what is largely thought to be anthropogenic change. The Anthropocene both reinscribes a terrestrial bias towards conceptions of planetary history-as-rock-layers, but also draws our attention to specifically oceanic challenges to our current conceptions of the material and matter of history. Referencing Ian Baucom's suggestion that 'history accumulates' rather than passes, this talk explores the open question of, what if what accumulates as history is a heterogeneous mixture of seawater and solutes, rather than sediment? What kind of consequences might this have for media theory and environmental humanities?

Session 5 (C)
The Hive Project
Chair: Guy Zimmerman

In the Fall of 2012 three Los Angeles-based playwrights - Gray Palmer, Guy Zimmerman and Rachel Jendrzejewski - began working on short plays exploring post-natural couplings between humans and bees. Bergson described human intelligence as like a a spotlight accompanied by a fringe of instinct. In going from the human to the animal, according to this
model, we leave the light, pass through the penumbra, and then find ourselves in a dark - a dark what? These three plays ask what if animals could travel in the opposite direction, after watching us for a long time, from the dark to the light, with sudden access to human language. Drawing on animal studies texts from Von Uexküll to Heidegger to Deleuze and Guattari, as well as Gramsci, Isabelle Stengers and Vijay Prashad, the collaborators created three short plays that

engage with philosophical and political issues linked to the long and rich history of human-bee interactions. As an art-form involving high-level social collaboration, theater provides an ideal medium in which to probe the human-bee interspecies boundary in hopes of shedding light on our inability to ameliorate the devastating impact we are having on living systems globally. Delivered via a gifted ensemble of performers, composers and musicians, these three playful and darkly comedic plays make the theater space, at least temporarily, into a hive.

Contributors: Rachel Jendrzejewski, Gray Palmer, & Guy Zimmerman; performances by Corryn Cummins, Max Faugno, & Alana Dietz, with cellist April Guthrie

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Session 5 (D)
Critical Game Studies 2: ARG and the Politics of Play II
Chair: Patrick Jagoda

This is one of a series of four panels dedicated to critical game studies. The panel features a range of approaches varying from the historical and theoretical to the artistic. Participants include both game designers and scholars. The function of the series is to analyze how games operate in contemporary information economies and undertake a rigorous analysis of how games as a cultural as well as technological apparatus speak to larger political, cultural, and aesthetic issues.

Lauren Burr, University of Waterloo
Fanning the Flame of Freedom": Alternate Reality Politics and the Ethics of Bystander Involvement in an Aborted ARG
What if you designed an alternate reality game and nobody showed up to play? This is a question that plagued the design team of Bonfire of the Humanities, and one that would never be put to the test. This particular ARG, a collaboration between members of the University of Waterloo Games Institute and Drama Department for the 2012 meeting of the Congress of Humanities and Social Sciences, was shut down the evening before launch. The decision to cancel the game was the result of miscommunicated intentions, as well as exaggerated security concerns. From its inception, Bonfire of the Humanities was meant to be a social experiment that justified our value as humanities scholars by critiquing academia from the inside out. In expanding the magic circle of gameplay to include Canada's largest academic conference, we sought to engage both players and bystanders in an act of self-critique as scholars. In this talk, I argue that the political power of Bonfire of the Humanities derived from its denial of itself as a game, from its satirical mirroring of, and direct engagement with, pressing issues in the academy today. The design team's refusal to compromise on this element resulted in the cancellation of the game. This presentation offers a critical explanation of the game's design and subsequent collapse, and seeks to defend the choices we made by situating our project within the larger historical, theoretical, and political contexts of pervasive games and site-specific performance.

Jeff Watson, University of Southern California
Playing With Reality: Pervasive and Environmental Game Design Beyond the ARG

In contrast to more capacious terms such as "environmental game" or "pervasive game," the term, "alternate reality game," (ARG) refers to a very specific and well-defined form of interactive transmedia storytelling that "[takes] the substance of everyday life and [weaves] it into narratives that layer additional meaning, depth, and interaction upon the real world" (IGDA ARG SIG). In this paper, I will critique this kind of experience design, focusing on its emphasis on "top-down" transmedia storytelling and the effects this emphasis has on limiting replayability, accessibility, and sustainability. Such limits are not always a concern to designers. Indeed, for those interested in telling stories, these limits can in fact be strengths. However, particularly in educational and social impact contexts, many designers may not be as interested in delivering narrative as they are in empowering participants to tell their own stories and construct their own environments. From this perspective, the limitations the ARG imposes on replayability, accessibility, and sustainability are critical. This paper will explore these limits in depth, and will propose a more systems-centric (or "high process intensity") "story facilitation" approach. This approach will be illustrated with examples from Reality Ends Here, a multi-year "reality game" currently unfolding in a North American post-secondary learning environment.

Patrick Jagoda, University of Chicago
Response: Alternate Realities: Playing within the Transmedia Present
Patrick Jagoda will serve as a respondent to address the issues covered in both of the ARG panels.

Session 5 (E)
Object-Oriented Feminism 3: DEVIANCE 1
Chair: Katherine Behar

OOF3: DEVIANCE queries deviant behaviors in postnatural populations of objects. Continuing the 2010 and 2012 Object-Oriented Feminism streams, this is the first panel in a two-panel stream which brings feminist and queer theory and object-oriented philosophy together to inquire after (and to form) deviant objects. From a feminist/queer perspective, a deviant object is one that behaves irregularly, seemingly against the so-called "natural" order of things. In this light, deviance conjures deviant behaviors that stand out from, critique, subvert, or somehow swerve against the sway of normativity. In the new ontologies postulated in object-oriented thought, such deviance raises significant questions. If objects are the new subjects, or if the "postnatural" is the new nature, does every object's uniqueness makes deviance the new normal? And if so, how will OOF contend with difference? DEVIANCE plays out in pattern and noise, in repetition and aberrancy, in redundancy and mutation, and in behaviors and phenomena that take exception to, and blow expectations of, the natural.

Timothy Morton, Rice University
All Objects Are Deviant
Objects are all deviant, insofar as they exist in difference from themselves. This is because they are riven from within between what they are and how they appear. To say this is to continue the

thought of Luce Irigaray, for whom at least one entity, known as woman, falls outside of the logical Law of Noncontradiction, insofar as female physicality cannot be thought either as one, or as two, but as a weird touching between one and two, a loop-like self-touching denigrated as narcissism. What object-oriented ontology does is simply apply this thought to any object whatsoever. The question is, in so doing is one exiting logic altogether? Are objects (people, fish, stars, gurgling fountains) just illogical? Or does logic require rethinking from within? In this paper I shall be arguing that the latter is the better option, and not only for the strategic reason that an entire region of thought should not be handed over without struggle to the reactionary forces. The main reason for working on logic is that logic works much better if it is able to think deviance, to think in a deviant manner.

Frenchy Lunning, Minneapolis College of Art and Design
Allure and Abjection: The Possible Potential of Severed Qualities
In this continuing investigation of the OOF discourse, linkage with established feminist theory would seem to be essential in discovering the possible space in OOP philosophy for a feminist potential. In looking at Graham Harman's work on allure juxtaposed with Julia Kristeva's work on abjection, certain relationships, similarities and movements suggest a way to read across their central metaphors in structure, movement, and in their implications of marginal identities and aesthetic locations. Both offer unique aspects that can be used in critiquing the other, such as in the intriguing leftovers of abjected qualities or "dark agents" found in the gaps between objects and the note-objects created in the heat of the abjection/separation process. Even more essential, is the similarity in the movement of the "thrust aside" of Kristeva and the "special sort of interference … or strife between an object and its own qualities, which seem to be severed from that object" of Harman. In the explication of both movements is the use of the metaphor as a mode of narration to explain the invisible, the real/not real, and the possibilities of the desire/disgust binary as not only the generator of the separation, but the landscape of a potential agency, as they lie at the very limits of representation.

Amit Ray, Rochester Institute of Technology
Deviant States and Secreted Objects
Poststructuralism arrived during a period of political upheaval for the industrial economies that had previously overseen empires. Its destabilization of modernist categories of identity also coincided with the postcolonial era. As these categories were gaining purchase in newly sovereign states following decolonization, they were being called into question in Europe and North America. It may be useful to draw certain parallels between that earlier moment and recent developments in object oriented ontology and anthrodecentrism. The last decade has seen major political and financial crises in postindustrial states, as well as the increasing economic influence of the developing world. This paper asks whether we might better understand these philosophical movements in the context of continuing tensions of empire. By acknowledging the autonomy of the object, with its accompanying anthrodecentrism, OOO might appear to be well suited to redress the manner in which the category of the 'human' has historically been used and abused. Using recent examples involving secrecy and surveillance technologies, the last part of this paper examines these questions in relation to the current autocolonial turn which late liberalism appears to be undergoing.

Katherine Behar, Baruch College, CUNY
"Seeing Things" in Data Visualization
Data visualization is the visual representation of data. While in no way limited to digital media, in today's big data climate, in which digital data is produced and collected at unprecedented scales, data vis is a bona fide cultural phenomenon, appearing everywhere from news info-graphics to medical imaging to network analysis to art. Data vis traffics in pattern and noise, sifting variations and regularity from the chaotic hum. Numeric consistencies are the deviations—i.e., patterns—that data vis renders aesthetic, sometimes beautiful, always gratifying. As the term "data porn" implies, there is deep satisfaction in the complex rendered simple, and the muddled made clear. Through engineering and design strategies, data vis affords us the perception of an underlying order in the universe, offering the reassurance of coherence and manageability in the face of an overwhelming data glut. But what does data visualization visualize? While data vis purports to reveal essential properties of data, visualizing existing data—for example, comparing two or more existing bodies of data—is another form of the production of data—for example, generating new data of similarity and difference. In Bataille's sense, data vis's "visions" seem like another contribution to a general excess, not a revelation "in excess" of normativity. So when data vis (invariably) locates deviations, are they not already rendered consistent with a larger informational whole? As an object, to what extent can data vis be isolated as deviant within its larger data ecology?

Orit Halpern, New School for Social Research
Response

Session 5 (F)
Big Data and the Call of the Inhuman: Towards an Alien Theory of Liveliness Itself
Chair: Karen Gregory

Recently theoretical trends such as New Materialist feminism and Speculative Realism have witnessed a return to the realm of the ontological and the nature of vitality itself. We contend that the emergence of "big data", rather than a nebulous piece of new media jargon, is a philosophical vector indicative of shifts in the logic of life itself that necessitate its own materialism. We have identified this logical move elsewhere as the "datalogical turn", an instantiation of a weird materialism in which data conjures rather than reflects the material and distinctions between the ontological, epistemological, performance and representation are radically occluded. This strange matrix enunciates a desire to grasp the object of life within an apparatus of computational intelligence, that is to say, to make computation lively. We propose to probe this question of life itself through the lens of a weird vitalism in which the liveliness of the algorithm becomes ontologically fused to the liveliness of the "organic". What does liveliness mean when it is performed by computation, and when computation's complexity absorbs the supposedly incomputable aspects of life? We interrogate the implications for criticism and theory of what we are calling alien vitalism: a vitalism that performs the metaphysical through computation-without-us. We see this, not as a movement towards an ultimate control over life a la "Societies

of Control", but rather towards a conjuring of life-beyond-life; of a liveliness beyond the edges of thought and into the ream of the mystical.

Patricia Clough & Benjamin Haber, CUNY Graduate Center
The Datalogical Turn
In much of the world, data collection is now ubiquitous. Leaving digital traces with quotidian behaviors such as swiping a credit card, clicking through links, visiting hospitals, or accruing speeding tickets, human lives continually pass through datafied terrains. These movements are not unidirectional however--data fields pass in and out of bodies, feeding on novel and emergent connections--a becoming-monster that offers the promise of spectacular profit and control. To manage these unruly landscapes, algorithmic architectures are being built and put to work in the sciences, finance, marketing, education, urban development as well as military and policing policy and training. These algorithmic architectures are software that facilitates the collection and management of what are literally unfathomable amounts of data, what is popularly known as 'big data.' However, big data, or what we will refer to as the datalogical turn, is not simply the generalized deployment of a technological apparatus, but the animation of an emergent conception of sociality, one in which the human subject is no the longer the central figure. This turn to the logics of data, we will argue, requires a revaluation of the very frameworks through which social reality has been traditionally conceived and promises profound disruptions to what George Steinmetz has called sociology's epistemological unconscious-a certain configuration of positivism, empiricism and scientism.

R. Joshua Scannell, CUNY Graduate Center
Digital Gods and Human Monsters: Theorizing the Data Bodies of Control
Gilles Deleuze predicted the mode of governance actualized by big data in his 1991 essay, "Postscript to the Societies of Control". In it, he argued that the parametric tactics of a post-disciplinary society of control necessitated a turn away from the axial management of statistical bodies of population and discipline of corporeal bodies of individuals, as Foucault famously argued. Central to the emergence of control is a topological rendering of the regimes of power and signification that can provisionally be grouped under the heading of "the body". Literature that reckons with this theoretical disposition often presumes a temporal and spatial periodization of body and data. While it is often contended that the relationship is inextricable, data is not supposed to materially instantiate the body, and bodies are not supposed to materially instantiate data. Following from long histories of analysis of cyborg and transpecies reconfigurations, recent developments in science studies (Latour, Martin, Wilson, Barad, etc), cultural theory (Thacker, Rose, Thrift, etc) and philosophy (Harman, Bryant, Negarestani, Parisi), I contend that, rather than digital technics of control depending on a warping of materiality and the body, that digital technologies of surveillance and social organization are in fact, themselves, material instantiations of bodies, and that the notion of "the body" itself, or "embodiment" is in fact coagulated within the datasphere. Furthermore, this coagulation provokes what I am calling a "new mysticism" in which questions of possession, worlding, embodied experience and deity (immanence?) are profoundly challenged and reconfigured.

Karen Gregory, CUNY Graduate Center

Between Conjure and Con: Thoughts on the Interface
This paper begins with the figure of the Roman trickster god Hermes to investigate the relationship between the non-living, the border, and life. While recent theories of value and of computation see that data aggregation practices (what is coming to be known as "Big Data") are blurring borders between commercial, scientific, and technological development, thought is also being drawn to the notion of "the border itself" as that which is immanent to a terrain. No longer found at the edges or fringes of a territory, the border— as an ontological slippage between non-matter and manifestation—is being taken up as an exploratory expedition by algorithmic or parametric architectures. Such an expedition is being granted tremendous sway over not only flows of capital and labor, but also over our notions of sociality and culture. While algorithmic computation would like to see itself as synonymous with a project of "worlding", the reminder of Hermes suggests that such conjuration is haunted by a playful reorganizing "con" or trickery, which sits at the very heart of the slippage between the worlds of the non-matter and matter.

Session 5 (G)
Horses: In House, In Hand, and In Person: Session 2
Chair: Nigel Rothfels

The contributors to these two panels are thinking about new, perhaps postnatural, ways to talk about the physical, emotional, and intellectual embodiedness of horses and how those aspects of the creatures must be part of our interactions with them and thinking about them. Coming from a range of fields – including archaeology, literary studies, art practice, American studies, and veterinary practice, the panelists will discuss how intimate living with horses, engaging them as complex living entities and being open to new configurations of human/horse relationships, opens up our thoughts and work about horses.

Lee Deigaard, Tulane University
One-to-One: Close Quarters
My artwork portrays animal protagonists and the landscape we mutually inhabit. Longterm ongoing video and photographic projects explore what it is to interact closely with a horse, one-to-one, without halter or rein, for the primary purposes of companionship and nonverbal communication. My series of nocturnal portraits in the horse pasture investigates proprioceptive awareness, the darkness highlighting both a sense of intimacy and of otherness, and rely in their making on the horse's voluntary collaboration. My photographic series "Horse Lips" considers close physical proximity to the horse's mouth and nose, the highly sensitive, investigative, and communicative equine corollaries to the human hand. "Dirty/Pure" engages online voyeurism via YouTube commentary on woman-horse interactions. "Steady Star", a video animation installation includes recordings of the sounds of a sleeping horse and the pine shavings of a horse's bed. "Villanelle" and "Pastorale", long-form videos and large-scale projections rely on the associative, narrative-building rhythms of fragmentary moments- in the barn, in the pasture, in the woods. I am interested in ways of seeing and being seen: the meeting and crossing of gazes, looking through and seeing [what is] past. The mind's eye, the forensics of memory,

recollection, and projection, the existential filters of species and tree branches and deep darkness. Eyes are windows, windows are viewfinders, boundaries, frames, and lenses. Object, subject, free will, trespass are illuminated in the hidden moments between moments. The plasticity of identity, of identification, shares borders- human and horse, light and dark, body and space.

Angela Hofstetter, Butler University
Born this Way: Totilas & PostNatural Sport Horse Breeding
It has been argued that the rise of natural horsemanship "has allowed us to see horses in a whole new way, as agents of change in the human condition" (Lamb and Miller 14). The growth of this billion-dollar industry in the United States reflects an iconic shift that goes beyond traditional equestrian industries like racing, rodeo, or reining. Rather than pursue training in standard disciplines, a growing proportion of owners seek cowboy clinicians whose primary aim is to facilitate interspecies communication. The primal longing that led our ancestors to paint these majestic creatures on the caves of Lascaux forcefully reasserts itself as the horse—at least symbolically—assumes a privileged role as conduit to nature. In response to the unsustainable environs of Walmarts, CAFOS, and McMansions, natural horsemanship becomes the final frontier which opens wide spaces—even if only mental—for human and horse. But what of the physical? Does seeing the horse as an "agent of change" result in more ecologically conscious decisions for stabling and feeding the over 9.2 million American horses? The disappearance of habitat destabilizes the delicate equilibrium between nature and culture in material ways that make providing room to roam increasingly difficult for horses who too often exchange greener pastures amongst the herd for solitary confinement in gilded cages with only occasional grain and limited hay to break the boredom. Such dire conditions demand a reevaluation of what PostNatural horse keeping might look like, or, in the twenty-first century, even the stable risks becoming a simulacrum.

Erica Tom, Rutgers University
The Effects of Natural Horsemanship Within and Beyond the Horse World: Gender Essentialism, Subversion, and "Prey-Identified Masculinity"
It is widely recognized by equestrians that Natural Horsemanship has helped to create better lives for horses, but what are the effects of the discipline among humans? Coined in the 1980's by Pat Parelli, Natural Horsemanship has become an umbrella term to include those trainers who embrace a non-violent philosophy. Monty Roberts and Buck Brannaman are recognized as leaders in this "revolution in horsemanship" (Miller and Lamb). Their narratives of surviving childhood abuse by their fathers are produced within the equestrian world, as well as in popular culture. They use ethological language to argue that their background allows them to understand the position of "prey animals", which includes both horse and woman. Roberts' and Brannaman's narratives produce a "prey-identified masculinity" that allows them, as traditional cowboy types (white, broad and tall), to lead the primarily female followed discipline. The discourse of Natural Horsemanship, and particularly these trainer's narratives, rely on gender essentialism, yet fluidity is also encouraged as masculine and feminine body language is employed by men and women in the discipline. Some argue that Natural Horsemanship is making "better people" through its non-violent philosophies of understanding (Miller and Lamb). Yet, can traditionally oppressive conceptions of gender roles be at the core of the discipline and

liberate people? How does the "prey-identified masculinity" function within the discipline—for the men, the women, and the horse? What does it tell us about gendered relationships within the subculture of Natural Horsemanship, as well as popular culture?

Session 5 (H)
Postnatural Health
Chair: Mae Kilker, Notre Dame

Olivia Banner, Rice University
FitBit, Fit Mind: Mental Health after Watson
What will medicine and psychiatric treatment look like in a postnatural world? This paper considers the emerging digital patient in three locations: a web company that "analyzes" forum posts in online patient networking sites; the quantified self movement; and a science fiction novel about mobile digital health systems. Billed as disruptive technologies that will fundamentally reorganize medical diagnosis and treatment, biosensors, genetic sequencing, and scanning modalities are also being used by everyday citizens in the hopes of regaining the authority over the body and its biodata currently in the hands of medical experts. I focus my analysis on mental health diagnoses to understand whether these "disruptive technologies" implement and augment a Foucauldian governmentality of the self or augur an era when new discoveries about bodies might be on the horizon. I consider the extent to which capital drives the uses to which these technologies are being put, and I focus my analysis in particular on psychiatric diagnoses, which these technologies reify. With its particular interest in how mobile health systems of the future will operate through automated modes of "reading" the body and its complaints, the novel clarifies how mobile mental health technologies work by enlisting their users in an understanding of the mind as leashed to a network and by sedimenting what one theorist has assessed as the circuits of drive. The novel, set in a future postnational world, also shines a light on how these disruptive technologies' currently play a role in a certain kind of digital nationalism.

Laura Otis, Emory University
Exorcising Self-Pity: Self-Help against the Natural
In literary studies and psychology, self-pity is the third rail of human emotions: grasping it analytically threatens to short out careers. It remains on the margins as an emotional state that most human beings have experienced but which many cultures so greatly despise that few people want to study it or admit that they have felt it. This presentation offers an overview of an incipient project on "banned emotions." Sianne Ngai's Ugly Feelings (2005) provided a new look at unsavory emotions, arguing that literary representations of envy shift critical attention away from social inequities toward individual character. The research introduced here will compare literary and scientific representations of self-pity, rage, hatred, and prolonged crying, depictions in which assumptions about gender and politics collide with religious beliefs. Focusing on condemnations of female self-pity, the presentation will examine two recent films, GI Jane (Ridley Scott, 1997) and Bridesmaids (Paul Feig, 2011) in the Anglo-American literary context of Pilgrim's Progress, Great Expectations, and Mrs. Dalloway and the scientific context

of psychological studies conducted since the 1970s. Special attention will be paid to the metaphorical systems with which these literary and scientific works represent self-pity and its overcoming, particularly stasis vs. movement. These metaphors will be analyzed using the now classic techniques of George Lakoff and Mark Johnson and the newer ones of cognitive scientists such as Dedre Gentner. The aim will be to learn how literary and scientific representations of banned emotions might affect readers' bodily experiences.

Danielle Stock, University of Waterloo
Holistic Health and the Posthuman
Holistic health, in constructing the body-mind-spirit as an energy system influenced by and coextensive with other energy systems, certainly points to a posthumanist understanding of corporeal existence as inescapably coterminous with environmental and technical entities, both material and immaterial. However, holistic health stops short of fully accepting the fractured nature of what we call the body. Its fixation on treating the individual in his or her natural state of wholeness undercuts its own assumption that the body is, also, composed of an assemblage of energies and materials, including such phenomena as imbalanced chakras or electromagnetic fields. This paper explores what it might mean for holistic health to take more seriously its posthumanist claims regarding corporeal existence. In dialogue with the work of theorists Cary Wolfe, Judith Butler, and Jane Bennett, I explore the conference theme of the postnatural—particularly with regard to the rejection of a natural or originary bodily wholeness—within and through the contradictory doctrines of holistic medicine. In order for holistic healing to be truly holistic, does it need, paradoxically, to see the body as anything but whole? If the body's extension through its environment in the form of 'energy systems' can result in illness or imbalance, does holistic healing need also to 'treat' the environment of the body? Conversely, if our physical environments are 'sick' or 'imbalanced,' then are we also sick? Must a true holistic medicine be, also, an ecological medicine?

Ronald Schleifer, University of Oklahoma
Cross-Cultural Pain: The Intersection of Science and Culture
There is rich physiological evidence that describes the manner in which human pain is a defining and ubiquitous phenomenon of *all* human life. On the other hand, the International Association for the Study of Pain defines pain in a manner than offers a striking example of pain as experienced in *culturally specific* ways. In its website defining pain, it notes that

> Pain is always subjective. Each individual learns the application of the word through experiences related to injury in early life. Biologists recognize that those stimuli which cause pain are liable to damage tissue. Accordingly, pain is that experience we associate with actual or potential tissue damage. It is unquestionably a sensation in a part or parts of the body, but it is also always unpleasant and therefore also an emotional experience.

In *The Culture of Pain*, a pioneering examination of the phenomena of pain as inflected by cultural experiences, David Morris argues in more specific ways that "what we feel today when we are in pain . . . *cannot* be the same changeless sensations that have tormented humankind every since our ancestors crawled out of their caves" (Morris 1991: 4). To make this argument, he focuses on particular timely *experiences* of pain, and he suggests that any particular human pain is not always commensurable with other human experiences of pain. Such definitions of

pain – the scientific-sociological study of the IASP and Morris's literary-cultural study – which connect human experiences, early-life and otherwise, to the seeming "objectivity" of physiological phenomena, offer a particularly well delineated strategy for understanding cross-cultural phenomena. That is, human pain, which seems ubiquitous and a particularly good example of *transcultural human experience* also needs to be understood as *culturally specific*. In this presentation, the special case of pain as both a *human* and a *cultural* phenomenon will be examined in order to shed light on the strategies by which cross-cultural phenomena can be understood as the study of both differences and similarities that can be brought together, negotiated, and lead to wider understanding of our shared and particular lives.

Session 5 (I)
"Civitas Innaturalis": Nature and (Post)Humanism in Italian Literature
Chair: Sabrina Ferri, University of Notre Dame

Italian cultural and literary production has always been rooted in a solid humanistic tradition that has made the human being the measure by which life itself is judged. As an understanding of reality that is defined by human experience, humanism finds one of its cornerstones in the idea of a harmonious correspondence between microcosm and macrocosm—between man and universe—that has proven as much ideal as impossible to achieve. The specter of a "collapse of nature," however, and the awareness of the precariousness of human life on earth have always haunted our imagination. From the early modern to the contemporary period, several thinkers, writers, and artists have eschewed anthropocentric approaches as inadequate to account for the complexity of the relationships between humans and the natural world. This panel seeks to explore the different ways in which Italian authors have tried to think beyond humanism in order to raise questions about the role of humans in a potentially post-natural world. Topics include but are not limited to: the boundaries between civilization and wilderness, and between humanity and animality; hybridity, metamorphosis, and subjectivity; issues of agency, environmental awareness, and eco-critical activism; nature and technology; notions of temporal continuity or rupture; anthropocentrism, anthropomorphism, and the biosphere; etc.

Damiano Benvegnù, University of Notre Dame
A Naturalist after Auschwitz: Primo Levi as Ecological Writer
The Jewish-Italian writer Primo Levi (Turin, 1919-1987) is one of the most important authors of the twentieth century. Despite the wide range of literary genres Levi explored, his increasing fame is nonetheless mostly attached to the literary witness of his own imprisonment in a German concentration camp, as exemplified in his first book entitled "Se questo è un uomo" [If This is a Man, 1947]. His testimony is considered unique because Levi never gave up the particularly objective gaze acquired during his scientific academic training: as he explicitly states, throughout Auschwitz he carried "the curiosity of the naturalist who finds himself transplanted into an environment that is monstrous but new, monstrously new." This naturalistic attitude did not disappear after the Second World War. Actually, it became an important part of his lesser known literary work, in which the witness makes room for the poet, the science fiction writer, and the journalist. My paper investigates Primo Levi's poems, short stories, and newspaper articles in

order to underline how his "naturalism" became a manifest attention toward ethological and more largely ecological issues. Particularly, I will focus on Levi's understanding of the eco-critical interactions between animals (including the human animal) and the environment, as exemplified in poems like "I gabbiani di Settimo" (in "Ad ora incerta," 1984) and short stories such as "Ottima è l'acqua" (in "Vizio di forma," 1971).

John Welle, University of Notre Dame
To Call You "Nature": Andrea Zanzotto's Later Poetry and the Destruction of the Landscape
Andrea Zanzotto (1921-2001) is one of the most important Italian and European poets of the second half of the twentieth century. First dubbed "a poet of the landscape" by Giuseppe Ungaretti in the early 1950s, Zanzotto was one of the first intellectuals to sound the alarm concerning global ecological devastation. For over six decades, his poetry has been marked by dramatic stylistic shifts while remaining faithful to a central core of thematic issues: primarily, landscape, language, identity, and poetry itself. Known for his stylistic inventiveness, Zanzotto has also experimented with classical literary forms including the eclogue, the sonnet, and in a volume published posthumously, the haiku. While the lyrical celebration of nature in Zanzotto's poetry of the 1950s turned into mourning its despoilment in the 1960s and 1970s, his most recent volumes, "Meteo" [Weather Report] (1996), "Sovrimpressioni" [Suprimpressions] (2001), "Conglomerati" [Conglomerates] (2009), and "Haiku for a Season/Haiku per una stagione" (2012) treat the destruction of the landscape, the transformation of the natural environment, and the alteration of the very concept of "nature" itself. For example, the critic Felice Rapazzo in an article on the poetics of the later Zanzotto, writes: "an historical and anthropological trauma, which is not only psychological and personal, are at the base of his writing." This paper explores the collapse of nature and the degradation of the environment in Zanzotto's later work in an attempt to underline his critical examination of the disquieting realities of our time.

Serena Ferrando, The Catholic University of America
Daria Menicanti's Cricket, or on Being One With the World
The poetry of Daria Menicanti (1914-1995) is often set in a suspended, liminal space situated between the city of Milan, Italy and the natural world. The oscillation between this imagined landscape and the real one that takes place in her verses is the stage for a profound reflection on the responsibility of being human in a world that comprises a surprising amount of interaction with the non-human. Her collections "Cities Like" and "Other Friends" are odes to the animals, insects, and plants that still populate the modern city. The poet's self-described predicament sees her caught between spending her life in an industrialized city and an awareness of the tremendous environmental impact of modern urbanization practices, which is traceable to the classic culture vs. nature dichotomy, or the foundation of the western world as we know it today. This paper presents Menicanti's poetry as an example of material ecocriticism ante litteram, or the deconstruction of hierarchies and of the dichotomic distinction between culture and nature, discourse and matter. It is mainly in Menicanti's aquatic scenes (e.g. lakes, rain, waterways, fountains) that the human and non-human come into contact with each other and, for one brief moment, coexist on the same level.

Matteo Gilebbi, Duke University

"Inseguilo tu stesso animale / oltre la sillaba." Antispeciesism, Eco-criticism, and Animal Advocacy in Contemporary Italian Poetry
In the last fifteen years, Italy has witnessed a flourishing debate on animal studies and eco-criticism, primarily influenced by the work of Deleuze, Lévinas, Horkheimer, Derrida, Agamben, and Singer. The most recent and significant developments have been: Roberto Marchesini's establishment of the new field of zooanthropology; groundbreaking publications on post-humanism and animal studies by young scholars such as Paolo Caruso, Paola Cavalieri, Lisa De Luigi, Massimo Filippi, and Eliana Villalta; and the intense philosophical inquiry on speciesism provoked by Leonardo Caffo and Marco Maurizi, now merging into the ongoing debate on the blog "Asinus Novus" and the journal "Animal Studies." In this paper, I will explore how contemporary Italian poets (e.g. Fernando Bandini, Maurizio Ferrari, Mario Luzi, Franco Marcoaldi, Paolo Volponi,) engage with these issues, focusing particularly on those works that have the potential to enrich the philosophical debate and help us understand, through the language of poetry, the shift in human/animal relationships, the validity of an anthropocentric view of the world, the clash between nature and artificiality, and the re-consideration of animals in the arts, not for their aesthetic qualities or as metaphors of the human condition, but rather as living beings at a biological level.

Session 5 (J)
Postcolonial Animals
Chair: Charles Wharram, Eastern Illinois University

Phillip Drake, University of Chicago
Animal Sacrifice and the Production of Humans: Violence, Subjectivity, and Java's Drilling Disaster
This essay explores the relationship between animal sacrifice and the production of human subjectivity in media and literary representations of a famous industrial disaster in East Java, a mud volcano triggered by energy exploration drilling. This extraordinary mud volcano appeared suddenly in the middle of a suburban and agricultural region, releasing a steady flow of mud that has blanketed entire city districts, displacing over 40,000 people, causing dozens of deaths, and devastating local biodiversity. This mudflow, which continues to flow and threaten the region today, provides a case study for observing the ways violence against nonhumans helps sustain individuals and communities within social and ecological orders, in both Western and Indonesian contexts. The paper begins by analyzing a newspaper photograph of a goat being thrown into the mud volcano, suggesting that humans are always already after "nature," as the articulation of human-ness depends on acting upon the nonhuman other. As this project traces the various ways sacrificial violence expresses subjectivity, it will consider the staging of unequal power relations in both the execution and the representation of the sacrifice ritual. By recognizing these manifestations of power, we – who have the cognitive faculties, cultural determinations, and social agencies that enable us to perform violence, abstain from performing violence, and contemplate occurrences of violence – refine our capacity to understand forms of violence toward other animals, including other members of our own species.

Mary Sanders Pollock, Stetson University
The Evolution of Gerald Durrell from Colonial to Postnatural
Gerald Durrell's career as naturalist, collector, zookeeper, conservationist, and educator parallels an increasing general awareness in the global north of humans' negative impact on the planet, and efforts needed to halt the devastation. An actuating belief that "nature" can survive only with human interventions can be considered "postnaturalism." Durrell's first book, *The Overloaded Ark* (1953), reveals an imperialist attitude toward the people of Cameroon (Nyman 2003), which coincides with his concern for individual animals rather than species. By the 1960s, Durrell noticed shrinking wild stocks and began to worry about species extinction. After traveling to Madagascar and the Mascarenes (first recounted in *Golden Bats and Pink Pigeons*, 1977), his writing became more critical; anger at inadequate conservation efforts, destructive tendencies of postcolonialism, and subaltern participation in postcolonial enterprises is expressed in Durrell's novel *The Mockery Bird* (1981), which also elucidates a theory of island biogeography similar to that of Wilson and MacArthur (Durrell's theory developed independently). During the next decade, much of Durrell's writing concentrated on captive breeding and reintroduction (*The Ark's Anniversary*, 1990). By 1990, he was committed to conservation education (especially for people in environmental hotspots) and managed habitat, or "wild zoos" (Marsh 2003). *The Aye-Aye and I* (1992) exemplifies Durrell's late work in focus and frustrated tone. Despite his prejudices, Durrell's writing reflects an increasingly ecological and postnatural understanding of how humans, like other species, are affected by environmental stress. His solutions to mass extinction required interventions into both human and extra-human environments.

Jason Price, Arizona State University
Human-Animal Sensuality in South African Fiction
This paper examines representations of sensual relations or bestiality between humans and animals in Zakes Mda's *The Whale Caller* (2005). How does sexual desire across species challenge the way we think about animals? The taboo against interspecies sex offers an obvious place where the nature-culture divide is maintained. As a character from Coetzee's *The Lives of Animals* remarks: "Animals are creatures we don't have sex with—that's how we distinguish them from ourselves" (40). Bestiality offers the possibility towards changing views on animals as absolute others or as not worthy of our consideration into beings we can know and interact with intimately. Mda's novel centers on the protagonist and a southern right whale named Sharisha who engage in a sensual auditory exchange through calling and responding to one another, the protagonist calling from the shore with the aid of his horn. This paper will engage a discussion of Mda's representation of bestiality with theorists on this subject including Carol Adams, Alphonso Lingis, and H. Peter Steeves. Where Adams claims that all bestiality is domination with the human in a position of power over the animal, in Mda's portrayal of the massive whale Sharisha, it seems difficult to maintain that the protagonist dominates her. As they engage sexually across the distance from the shore to the bay in a fashion somewhat similar to phone sex, Mda portrays a human-animal sensuality that appears reciprocal and consensual as a mode of relating with "wild" animals differently.

Session 5 (K)
Collage II: Cobbled Meanings and Hybrid Fictions
Chair: Michael Filas, & Dennis Summers, CCO, Strategic Technologies for Art, Globe, and Environment

Collage and related forms of combination in all media have been among the most important strategies of creativity for the past 100 years. And it's not going away. By extension what is the SLSA conference if not one great intellectual collage. Isn't it the juxtaposition of speakers and ideas that gives this event its special meaning? Today we have a stream of 3 panels that will address collage from both individual creative perspectives and more general philosophical, historical, and methodological approaches. In the second panel three collagists working in varied media discuss their own creative works, contexts, and methods and are loosely connected by an attention to how media correlates the fictionality or truthfulness of a text, and how we craft meaning from these juxtapositions.

Michael Filas, Westfield State University
Hybrid Collage Writing Strategy and Process
I write fragment poetry and prose collages in which material is spliced together to suggest critique primarily through juxtaposition, but also through tone and perspective. Source material comes from transcribed Internet and TV coverage, medical and industry information, advertisements, and personal testimonies about contemporary medicine in capitalist and new media contexts. My paper discusses method and strategies of meaning-making such as point-of-view, tone, character, and form. The collage portions of my work are creative non-fiction—many block quotes are straight transcriptions of what is said in the commercials, print ads, or YouTube videos. Some material is not quotes but inflected retellings that create depth and backstories for the characters in these media, which I count as creative non-fiction. Fictional, linear episodes suture the collaged non-fiction together into a larger sustained narrative that critiques contemporary pharmaceutical culture and the role of various media in representing perspectives. Development of these hybrid prose collages is incredibly slow and painstaking, and relies on patient experimentation, multiple revisions, and sometimes visceral decisions. My paper will discuss the process and method of preparing hybrid prose collages and the aesthetics of successful work.

Rebecca Hackemann, University of the Arts London
Photomontage / Assemblage and Text: The Signification of Fictionality and Fragmentation in Photography
The photographic assemblage / montage work I propose to show, presents a postmodern enquiry into the role assemblage might play in exploring a critical understanding of the historical and institutional determinants of photographs - their meanings, uses and effects. The themes addressed in these constructed montages that include text, are concerned with human and animal relations and social conventions. They reflect a critical (Brechtian), humorous and questioning view of the world. They are historically linked to film and photography of the 1930's, such as Melies, or Heartfield. Questions that emerge from this work are: if, as Victor Burgin notes "photography is considered a practice of signification"1, how then do we read photomontage and assemblage that presents us with chopped parts of "wholes", or unrecognizable constructed

photographs? Barthes notes that the photograph "is somehow co-natural"2 with it's referent. I would add to this, that photography's relationship to its referent is very different to the relationship between written language and it's referents. The assemblage then rips this quasi retinal correlation between the image and referent / reality apart, by reconstructing its own internal logic of meaning, whichever medium it may take (bioart, digital). The work I propose includes a method of creating an internal logic using parts that entail a specific use of image/ text combination in order to evoke a variety of associations in the viewership.

Tyler Starr, Davidson College
Nature of Cobbling
By dredging archives, personal experience and computerized imaging, I create artwork that reflects a process of cobbling together cross-referenced information in attempts to make sense of the world. I am influenced by the way printed media has been used from its very beginnings to impose order on the confusion of human events. My work looks to the American development and techniques of yellow journalism as well as incorporating lessons from Japanese art traditions such as economy of information and sensitivity to materials. I assemble isolated elements from appropriated YouTube videos for use in digital animations, stitch together cellphone photographs and news clippings to create relatively seamless stencils for spray-painting, and layer fragments of translucent Japanese papers to compose my paintings. My most recent series Hell and Highwater explores tragic stories projected onto landscapes. I research local histories that tell of theatrical situations with sublime natural backdrops. These dramas have soaring motivations and desperate solutions that leave ambiguous results as evidenced by the geographical sites all over the world given names with devilish associations or designated as Lover's Leaps. These special locales are treated as pictographs of spiritual and social conundrums that embody the symbiosis of love and destruction. Computer induced associations, pixel construed perception, information networked moments, wire based socializing, and jerry-rigged architecture of the pragmatically utopian community of Christiania in Copenhagen will all be considered for their critical collage-based strategies and their applications to image making.

Session 6 - Friday 4:00pm -5:30pm

Session 6 (A)
Science-Fictional Spaces
Chair: Linda Henderson

This panel brings together scholars of English and Italian literature and art history to consider science fiction and the contexts for its various spaces, ranging from 20th-century concerns with higher dimensions and with high-orbital space colonies in the 1960s to the 21st-century quest to "know no boundaries" of the Italian Connettivismo Collective.

Linda Henderson, University of Texas at Austin

Science Fiction, Art, and the Fourth Dimension
One of the most effective examples of Samuel Delany's concept of a science fictional "paraspace" has been the space or space-time encoded in the phrase "fourth dimension." Sampling authors' usages of the term through the 20th century reveals its changing significations, which were paralleled in artists' responses as well. Despite Wells's use of a temporal fourth dimension in *The Time Machine* (1895), it was tales such as "The Plattner Story" (1896) that were in tune with the then-dominant understanding of the "Fourth Dimension" as a higher spatial dimension. Such an alternative space would continue to figure importantly in science fiction even after the popularization of Einstein and Relativity Theory, beginning in 1919. Indeed, writers such as Ray Cummings, Miles J. Breuer, Robert Heinlein, and Mark Clifton played key roles in the 1920s-1950s, keeping alive the spatial fourth dimension in the face of popular acceptance of time as the fourth dimension in Einsteinian space-time. Yet, with the "block universe" interpretation of Relativity, space-time, too, could serve as a scenario for time travel, Clifton relied on such a model, combined with the hypercube, in his 1952 "Star, Bright," and Brian Aldiss in*Cryptozoic* (1967) made subtle allusions to the fourth dimension in his tale of travel to prehistoric eras. The latter book was a favorite of artists Robert Smithson and Peter Hutchinson, whose works in the 1960s drew stylistic cues from science fiction itself, creating a new degree of interaction among science fiction, art, and the fourth dimension.

Bruce Clarke, Texas Tech University
The Ecology of *Neuromancer*: High Orbit in Planetary Context
While taking cyberspace along with it, the storyworld of William Gibson's *Neuromancer* (1984) upshifts from its initial Earthbound settings to an "archipelago" of high-orbital space colonies. These orbital settings have ecological requirements that subtly inflect the latter half of the text, as well as a remarkable but unappreciated provenance that ties *Neuromancer*back to NASA artists and the cybernetic counterculture of the mid-1970s. This talk addresses the mix of ecology, space technology, and outlaw communalism Gibson tapped to keep *Neuromancer*'s digital feet on the ground, even while in floating in space.

Arielle Saiber, Bowdoin College
"Guardians of Fallen Angels, Wolves of the Stars": Italian Science Fiction's Connettivismo Collective
The Connettivismo Collective, started in 2004 in Italy by a group of erudite young science fiction authors, draw their inspirations from far and wide—from movements such as A.E. Van Vogt's Nexialism and F.T. Marinetti's Futurism, to cyberpunk and mysticism. Their ultimate goal: to engage consciously the how's of inter-genre and interdisciplinary conversation and production. The authors aim to tie together boundaries, rather than break them; or rather, as they state in their manifesto, to "know no boundaries." Within the pages of their encyclopedic corpus a reader will find avant-garde literary and artistic experimentation; elaborate oneiric imagery; a smattering of occult theories; solid knowledge of major trends in philosophy; a critical engagement with the history of literature, science, and art; an interest in urgent sociological, anthropological, and environmental issues; a fascination with current advances in science and technology; and quiet but earnest celebration of pop culture. The Connettivisti have published novels, novellas, poetry, short stories, essays, blogs, and graphic literature; and since 2005 they have edited a magazine called *NeXT*, which was named the best non-professional science

fiction/fantasy magazine in 2011. Founding member Giovanni De Matteo won Italy's top prize for science fiction, the Premio Urania, in 2007 for his novel *Sezione π2*. This paper presents the vision of this fascinating, new collective, looking closely at the importance the Connettivisti give to literature's engagement with science, science's engagement with the imagination, and both's commitment to exploring what the human mind can do and be.

Session 6 (B)
Feminist and Environmental Art Practices on Climate Change: Temporality, Loss, and Perception
Chair: Lisa Bloom

Climate change presents us with one of the great narratives to emerge over the last twenty years. The related universal discourse raises an apocalyptic storm that embraces every place, everyone and everything. It surrounds us on a global scale that is so intractable and is so exceedingly hard to represent, because it cries out for a myriad of responses and change at all levels of existence. Given the enormous scale of climate change encompassing the entire earth one of the tasks of this panel is to question the way climate change is represented. Focusing on the work of contemporary artists, this panel offers a visual depth and complexity not commonly available in public visual culture dominated as it is by the short narratives of environmental campaigns and journalistic reporting. In particular, the panel examines aspects of feminist and environmentalist art in relation to new scholarship on climate change, bringing together issues routinely kept apart in climate change debates such as connecting gender to nationalism, capitalism, and postcolonialism. Two of the papers focus on the polar regions; the third deals with climate change in California. All three go beyond current debates about climate change and transformed landscapes to investigate shifts in temporality, loss, and perception that inform how we think, act, and set policy for dealing with climate change as registered by contemporary visual artists.

Lisa Bloom, University of California at San Diego
Contemporary Art and Climate Change: Landscapes of Disappearance at the Poles
This is a paper about landscapes, the polar regions, geopolitics, climate change and the environment, but it also explores the boundaries of new art practices, a subject of analysis of my current book project of the same title as this talk. The paper discusses contemporary art that challenges normative assumptions about art—what form it might take, what effects it might have, and how it might be read as data—in addition to how it might change our perceptions of the slowly unfolding catastrophes of melting ice and thawing permafrost that is transforming the landscapes of the polar regions. The paper emphasizes the connection to the colonial histories of these regions, the technological incorporations of traditional knowledge into data, as well as contemporary approaches to art about landscapes and culture that challenges the ways in which we understand and interact with these regions. Questions of subjectivity related to gender, race, nationalism, and perception usually don't factor into thinking about polar climate. So this paper is not just about climate change and landscapes, but also about shifts in awareness that inform how we think about, act about, and set policy for dealing with these global regions. Thus, this

paper promotes crucial aspects of feminist and environmentalist art and art historical scholarship of the polar regions, connecting gender to nationalism, science, science fiction, utopia and dystopia.

Judit Hersko, California State University at San Marcos
Memoirs of Anna Schwartz: an unknown Antarctic explorer
This is a "performance lecture" that consists of a carefully timed narrative combining text and images. Based on my work with scientists in Antarctica as well as on extensive research on the history of polar exploration I reflect on the history of Antarctic exploration and science as it relates to current ecological issues such as ocean acidification. I insert into real historical events a fictitious unknown woman explorer and scientist, Anna Schwartz, a photographer and scientist whose scientific interest in Antarctica are the two planktonic snails that one of my scientific collaborators studied during her stay in Antarctica the Limacina helicina (sea butterfly) and the Clione antarctica (sea angel). The intimate relationship of the unknown explorer to microscopic creatures in the Antarctic landscape is a subversion of the large, heroic and masculine projections of her day. Ironically her approach is more relevant to current work in polar science. By connecting the fictitious historical figure of the unknown explorer with these planktonic snails I am able to explore the transformation of the Antarctic landscape from a place of 'heroic' imagination and conquest, a blank surface for cultural projections to a mirror that reflects the effects of how we live. The poles are the periphery that beam data back to the center; they are the place in which we do not live but where we can measure what we are doing to the environment of the planet.

Ruth Wallen, Goddard College
Cascading Memorials
Cascading Memorials is an on-going project to create public spaces to grieve the distressingly rapid degradation of terrestrial environments due to climate change, urbanization, and globalization. The project began in San Diego County, where I have worked for decades as an ecological artist and writer, chronicling the emergence of many communities the size of small towns while most conifers have burned, oaks, although regenerating rapidly after fire, have been ravaged by beetles, and coastal chaparral and vernal pools have largely disappeared. Yet like the overgrowth of chaparral after fire, memories have been quickly buried, with little sustained public conversation about the implications of change. The work is based on the premise that while apocalyptic predictions lead to fear, despair and paralysis, acknowledgement of irreversible loss can become the ground for active engagement. I will discuss this work, initiated in a gallery setting but now also being developed in both on-line virtual and public outdoor settings, within the broader context of ecological art. I will explore representational and narrative strategies that offer opportunities for engagement, make losses palpable, even intimate, while not invoking stasis but communicating the complexity of factors causing devastation in dynamic, ever-changing ecosystems. Focused on specific habitats, the work also interrogates place, the significance of concepts of the local, or bounded systems in an increasingly globalized world. Finally work examines the meaning of bearing witness, of how mourning can serve as an impetus to action.

Session 6 (C)
Creative Writers on the Postnatural
Chair: Karen Leona Anderson

This panel will be composed of creative writers reading their own work about what it means to come "after" nature, with special emphasis on ecocriticism and environmental literature. Poetry, fiction, creative nonfiction and hybrid genres will be read by SLSA writers; a discussion of this work with the authors will follow.

Michael Filas, Westfield State University
Biotene on the Soul
"Biotene on the Soul" is a hybrid collage critiquing overzealous capitalization of ordinary occurrences of xerostomia, or dry mouth. It blends non-fiction block quotes and fragments from television commercials, Internet (YouTube) videos, and print advertisements about the condition and products to treat it, including Biotene, and it mixes these fragments with elements from Aristotle's "De Anima / On the Soul," as well as from James Brown's song, "Soul Power." Media about alternate treatments, including electric shock, hydration apparatus, artificial saliva products, and a patch worn on the roof of the mouth are all featured as alternate approaches to correcting the problem. The brief collages, about a page or two in length, are interposed with episodes of similar length that, collectively, tell a linear story of a character who had suffered from xerostomia. The linear episodic story is a comic romance about the triumphs and adventures of a young man who deals with xerostomia treatment side effects since a childhood treatment gone bad. Along with block quotes, the collages include treated or inflected descriptions of material from the Internet and other media about xerostomia, its causes, and treatments, and these "treatments" are from the point of view of the winning hero of the linear episodic story. This work is meant to explore the way embodiment, and its messy fluids and variations, are connected to our understanding of who we are and what makes us sick, well, and soulful.

Stephanie Strickland, Electric Literature Organization
Dragon Logic
Stephanie Strickland will read from her new book Dragon Logic, a book of poems deeply into math, science, technology, and code. Strickland has written 7 books of print poetry and co-created 7 works of born-digital poetry. Her poems are plunged in a hybrid electronic / physical world that remembers where it came from. Dragon Logic is a book of eco-poetry seeking to expand the meaning of environment, evoking the work of women and figures of women, and asking the abstract and the physical to engage each other.

Joanna Demers, University of Southern California, & *Mandy-Suzanne Wong*, Evental Aesthetics
Mammoth: A Collaborative Novel
"Is an extinct animal still an animal when it's right there in front of you?" Worlds collide when a despairing artist, discredited scientist, displaced film director, and desperate young woman seek salvation in the corpse of a woolly mammoth. In an excerpt of the novel-in-progress, Mammoth,

we meet the volatile artist Bruce Newhall through the eyes of his personal assistant, Jim. The body of a mammoth has been found in Siberia, and Newhall, determined to turn it into a sensational new artwork, wants it for himself at any cost. Fast-forward to the unpacking of the mammoth in Newhall's warehouse in England, where he has blackmailed Tinae Gilbert, an award-winning filmmaker, into documenting every step of his gruesome project. It is through Tinae's eyes, and those of her film crew, that we see the mammoth for the first time - and she begins to wonder.

Stephen Allen, Independent Scholar, St. Joseph, Michigan
Minor Histories
In the poems I plan to read – all of which are from a collection-in-progress called Minor Histories – I adopt three different strategies for approaching the natural world:placing the poet in nature as a close observer; writing about the interaction of nature and technology; and using scientific discovery to see nature more clearly.

Karen Leona Anderson, St. Mary's College of Maryland
Receipt: Household Economy and Pests
Karen Leona Anderson will read from a manuscript of poems, "Receipt." These poems will explore the intersection of gender and pest ecology within the framework of "domestic economy." In the commands of recipes, the economic shorthand of the receipt, and a surreal collage of household advice, these poems entertain the complex systems of fungi, "trash" birds, and bats to investigate how some of our culture's most trivial language allows us to rethink our ideas about the value of the natural world and our place within it. Poems from "Receipt" have appeared in Best American Poetry 2012, New American Writing, the Colorado Review, and other journals.

Session 6 (D)
The Posthuman Imagination: Computer Games, Graphic Objects and the Dimensionality of Experience
Chair: Rebecca Perry

The panel engages the posthuman imagination expressed in animation and games, with attention to the origins of computer graphical objects, the experience of spatiality in game worlds and the play of "realities" on the surfaces of virtual objects. Through these practices, the boundaries of play are expanded to include the production process itself, with an emphasis on how objects in a virtual environment ignite experiential moments and become icons for navigation.

Margaret Dolinsky, Indiana University
Figuratively Speaking: Navigation, Landmarks, Spaces and Faces
An examination of the historical look at virtual environments and how their three dimensional graphical objects situate experience. Virtual environment art is a predominantly visual and kinesthetic form of 3D computer graphics that reacts to the viewer-participant as she manipulates

her head, hand and body movements. It offers a psychological proximity whereby the participant is physically located inside the art, completing the art with her active engagement, which forms and shapes it. For the visitor, the boundaries begin to blur between the self, the virtual environment and the limits of the real world. Reality as determined by the visitor and updated by the computer is mediated by code, screens, mirrors and projections, among which the artwork exists. The environment establishes a state of presence by exploiting perception and the senses. By igniting multiple modalities at once, significant cross modal effects occur where the sensory streams interact. When these sensory streams are significant, a sudden and fleeting moment of extra experience – a perceptual shift – can occur within the participant. The purpose of this presentation is to discuss the creation of art for virtual environments, to identify the creative and cognitive strategies that facilitate a sense of immersion, and to describe the resultant artwork. As the visitor navigates through art as a virtual environment, there is no set language for exploration. Each artist's work is its own journey established by the metaphor of its graphical objects.

Jacob Gaboury, New York University
Object Standards and the Uneven Ontology of Computer Graphics
Computer graphics are primarily concerned with the realistic rendering of visual objects and environments, and research in the field is often directed toward the simulation of particularly challenging effects – hair, skin, water, and other natural phenomena. This emphasis on a small subset of parts in any given world produces what Lev Manovich has described as the highly uneven ontology of computer graphics, whereby realism is unequally distributed in a particular simulation. This distribution is most visible in those objects that circulate in the graphics community as "object standards" that may be repeatedly deployed in a wide variety of simulations. Through an analysis of the history and function of two standard graphical objects – the Utah Teapot and the Cornell Box – I argue that computer graphics produce a unique model for the simulation of the natural world, one that functions simultaneously as both image and object.

Rebecca Perry, Massachusetts Institute of Technology
The Teapot, The Bunny and the Dragon: Posthuman Realities and Evolution of the Surface
The Teapot, the Bunny and the Dragon are iconic digital 3D computer models that have circulated among the computer graphics research community since they were created by researchers beginning in the early 1970s. My paper explores the origins and culture of 3D models created for testing algorithms in the computer graphics community. Posthuman conceptions of reality are played out on the models' surfaces'spaces upon which algorithms describing textures, lighting and surface attributes can be animated and performed for technical audiences'providing a visible cultural and technical identity for the community. Performance of algorithms enacted on the surfaces of models shapes the sense of community among computer graphics researchers, generating a shared set of standardized research objects, making researchers and their audiences visible to one another; and creating a normative space for the presentation and enactment of mathematical concepts, realities, algorithms and proofs.

Session 6 (E)
Object-Oriented Feminism 3: DEVIANCE 2
Chair: Katherine Behar, Baruch College, CUNY

OOF3: DEVIANCE queries deviant behaviors in postnatural populations of objects. Continuing the 2010 and 2012 Object-Oriented Feminism streams, this is the second panel in a two-panel stream which brings feminist and queer theory and object-oriented philosophy together to inquire after (and to form) deviant objects. From a feminist/queer perspective, a deviant object is one that behaves irregularly, seemingly against the so-called "natural" order of things. In this light, deviance conjures deviant behaviors that stand out from, critique, subvert, or somehow swerve against the sway of normativity. In the new ontologies postulated in object-oriented thought, such deviance raises significant questions. If objects are the new subjects, or if the "postnatural" is the new nature, does every object's uniqueness makes deviance the new normal? And if so, how will OOF contend with difference? DEVIANCE plays out in pattern and noise, in repetition and aberrancy, in redundancy and mutation, and in behaviors and phenomena that take exception to, and blow expectations of, the natural.

Anne Pollock, Georgia Institute of Technology
Queering Endocrine Disruption
"Mercury causes homosexuality in male ibises." Such was the headline of an article in the December 2010 issue of *Nature*. The subhead was typical of the scientific literature on endocrine disruption: "Environmental pollutant radically changes birds' mating behavior."   The article is centrally concerned with the declining reproductive rate of the birds, and suggests that a rise in male pairs is a significant factor. Like the literature of endocrine disruption generally, the article operates on the assumption that change in animal behavior and biology due to human pollutants is necessarily bad. And yet, from a queer feminist perspective, should we automatically decry the flourishing of non-reproductive male pairs of birds? The *Nature* article features a picture of a pair of birds strolling on the beach, and in this paper, I will suggest that we embrace rather than eschew the temptation to anthropomorphize enough to see that gay stroll as potentially having value in and of itself, and question whether reproductive fitness is the sine qua non of animal existence.

Susan Squier, Pennsylvania State University
Deviant Flows: The Epigenetic Landscapes of Anuradha Mathur and Dilip daCunha
Epigenetics, a biological field often thought to be narrowly deterministic and gene-focused, had broader implications that can be recovered if we return to the epigenetic landscape, CH Waddington's iconic visual metaphor central to the field. As part of a book in progress engaged in that recovery project, I have been studying the work of landscape architects Anuradha Mathur and Dilip daCunha. Their large-scale systems-oriented works approach the design field not as a stable or "natural" environment, or even as a biological entity, but rather as a contingent space/time through which changing systems (biotic and abiotic) pass and on which they leave their transient mark. I will discuss the work of Madhur and daCunha as examples of the productive translation of the epigenetic landscape into civic, aesthetic and discursive space. (http://www.soak.in/) Then, I will consider what pressure their projects put on the notion of an object oriented feminism. (Holling 1973, Meyer 2008) Anuradha Mathur and Dilip da Cunha

combine painting, photography, and landscape design in their water-oriented landscape architecture projects *SOAK: Mumbai in an estuary; Mississippi Floods: Designing a Shifting Landscape; and Deccan Traverses: The Making of Bangalore's Terrain.*

Melanie Doherty, Wesleyan College
The Deviant Wombs of Margaret Atwood and Matthea Harvey
Technoscience has gleefully provided humanity with a riotous deviant womb, allowing promiscuous splicings of goats and spiders, sneaking fish genes into tomatoes and strawberries, and creating sheep that glow in the dark. What role do these aberrant creatures play as we recombine our own human identity in a posthuman world? Using Matthea Harvey's poetry collection, *Modern Life*, and Margaret Atwood's *MaddAddam* trilogy, this paper will consider how these writers focus on genetic engineering as deviant forms of reproduction. Informed by Jane Bennett's vital materialism, Donna Haraway's cyborg theory, and Stacy Alaimo's trans-corporeal materialism, this paper will consider how contemporary writers explore human subjectivity itself as a Genetically Modified Organism.

Jamie Skye Bianco, New York University
#bottlesNbones: the Intimate and the Alien
#bottlesNbones: the Intimate and the Alien is an ongoing project that investigates the New York City inlet known as Dead Horse Bay. Dead Horse Bay was the site of New York City's horse rendering, guano and asphalt and bottling factories and the primary waste disposal zone from the 1880s through the 1930s. Eventually, the trash was "capped" underwater in the bay. Years later this cap exploded, throwing 100-year-old garbage, mostly bottles, horse bones, and domestic objects, onto the beach and creating the most nitrate concentrated sea water recorded. Further, Dead Horse Bay sits directly across from The Rockaways, a fully inhabited barrier island that constitutes the southern boundary of Jamaica Bay. Human infrastructure on The Rockaways was catastrophically damaged by Hurricane Sandy and the nor'easter that followed one week later. Breezy Point, a neighborhood on The Rockaways, burned during the hurricane. Masses of architectural debris and personal possessions from The Rockaways landed across the water on the beach of Dead Horse Bay, now making it a contemporary and historical waste disposal site, a deviant and queer site where a century's worth of waste is visible, intact and productively constituitive of an accumulative new norm of postnatural coastlines subject to regular and punctuated processes of unnatural catastrophes. In this multimodal and algoRhythmically generated performance, I will offer an iteration of the weekly practice of collection and capture, begun in October of 2012 and continuing on a weekly basis, a deviant and queer empiricism, performed as media intervention and ethical object rhythmAnalysis.

Orit Halpern, New School for Social Research
Response

Session 6 (F)
Cloud Theory
Chair: Peter Schwenger

When in 1802 Luke Howard read his paper on the classification of cloud forms, it was hailed as a triumph of scientific accuracy over the most nebulous and unstable of entities. The panel we are proposing returns to the realm of the nebulous, to what eludes our rational accountings and conscious attention: an "Unclassified Residuum" as William James described it. This is a non-ground out of which emerge our articulated thoughts and perceptions. No sooner are they articulated, however, than, like clouds, they move on to take other forms. The very nature of time entails that any stability in our thoughts and perceptions is illusory: morphology is imposed upon a continual morphing. This panel explores the possibility of doing justice to that elusive realm. Since Howard's scientific system immediately inspired literary responses – most notably from Goethe – it is appropriate that our panel has a literary slant. We will consider Emerson's prose style, "fluid as a cloud or the air," as he says; Stéphane Audeguy's 2005 novel The Theory of Clouds; and Lyotard's essay on clouds in Peregrinations.

Kate Stanley, University of Western Ontario
Atmospheric Attention
In The Will to Believe, William James asserts that our capacity for "new discoveries" depends on our attention to what he describes as an "Unclassified Residuum": "Round about the accredited and orderly facts of every science, there ever floats a sort of dust-cloud…of occurrences minute and irregular…which it always proves more easy to ignore than to attend to." How might we attune ourselves to those easily overlooked "dust-clouds" and what might be discovered there? James advises that we train a kind of atmospheric attention by learning to read the work of a writer who honed his prose for the primary purpose of registering the irregularities and minutiae that float at the fringes of experience—Ralph Waldo Emerson. Taking a cue from James, this paper will argue that the pervasive figures of clouds circulating through Emerson's essays are emblematic signs of "the cosmic weather" that buffets existence in an unpredictable universe of chance. As Emerson attests, in contemplating "clouds and opaque airs," we begin to cultivate an "attitude of mind and reality of relation" that likewise moves "atmospherically." He renders the act of reading itself an "atmospheric event" by crafting sentences that are as "fluid as a cloud or the air"; following the fluctuations of Emersonian syntax involves tracking volatile evanescences that are constantly cancelling themselves out. Like the mutable meteorological figure he mimics, the strange morphology of Emerson's writing allows no certainties to settle or stand.

Anthony Purdy, Universiyt of Western Ontario
A Cloud of Morphologies
Purdy, Anthony(French Department, University of Western Ontario; apurdy@uwo.ca)
When seeking a suitably impressive example of Funes's prodigious memory, Borges writes: "He knew by heart the forms of the southern clouds at dawn on the 30th of April, 1882, and could compare them in his memory . . . with the outlines of the foam raised by an oar in the Rio Negro the night before the Quebracho uprising." From which it will be enough to retain just two things: 1) that to address the morphological aspects of Funes's memory, Borges turns first to clouds; 2) that to archive a cloud, we have to date and time it – like all Funes's memories, the shape of a cloud has no existence outside time. The first point takes me to Goethe, as both poet and morphologist, and the cycle of poems he wrote in honor of Luke Howard. The second leads me,

first, to Flaubert's Bouvard and Pécuchet who, in their efforts to apply Howard's classification to their observations of the Normandy skies, find the forms have changed before they can retrieve the right names; and, then, to Jacques Aumont's claim that, after the Lumière brothers, there would be no more attempts to represent clouds realistically in painting. To capture the perpetual change at the heart of clouds, Foucault's famous "non-temporal rectangle," which grounds observation and allows classification, must be set in motion. My own frame for exploring the shifting nineteenth-century configuration of Howard, Goethe and Flaubert will be Stéphane Audeguy's 2005 novel, La Théorie des nuages (The Theory of Clouds).

Peter Schwenger, University of Western Ontario
Thoughts are Clouds
It is in Peregrinations that Jean-François Lyotard asserts that "thoughts are clouds" – a comparison that moves well beyond the localized effect of metaphor as he develops its philosophical implications. These fall into two categories. First is the role played in thinking by a vague periphery. When a shape emerges - whether in a thinker's mind or to the sight of a watcher of the skies – it always does so out of an indistinct mist of possibilities, one that is hardly ever admitted as worthy of analysis. Husserl is an exception, as he describes what surrounds our consciously attended to perception of the world: "an empty mist of obscure indeterminateness." And what is here true of the exterior world is true of the interior one as well. The second component of Lyotard's comparison is the role played by time. The shape of a cloud or a thought is not an object but something that emerges through movement, already moving on to merge into something else. As William James points out, we do not validate these transitions, but only the form they take in the moment. We create stability by seizing upon what we recognize and what we seek - the so-called "Rorschach effect" - for we cannot endure the indefinite. So we come full circle to Kierkegaard's version of Lyotard's claim: "There is no better image for clouds than thoughts, and none better for thoughts than clouds –clouds being figments of the brain, and what are thoughts if not that?"

Session 6 (G)
Book Panel
Rachel Polinquin's *The Breathless Zoo: Taxidermy and the Cultures of Longing* (Pennsylvania State University Press, 2012)
Nigel Rothfels, University of Wisconsin at Milwaukee
Jennifer L. Conrad, University of Wisconsin at Madison
Christina Colvin, Emory University
Alba Tomasula y Garcia, University of Chicago

Session 6 (H)
reconfiguring sensation: sensory prostheses and the postnatural sensorium 2. subjects.
Chair: Mark Paterson

'Reconfiguring sensation' considers how the sensate body has been co-constituted and reimagined through a combination of 'hard' technologies (hardware, interfaces), soft technologies (disciplinary apparatus or sensorial regimes), and more generally how scientific discoveries concerning the senses and new modes of somatic address have arisen since the original 'turn' to embodiment in the 1990s. We seek cross-disciplinary discussions of interfaces, artworks, and more generally 'aesthetic' encounters that problematize ideas of the sense 'modalities' as such. We therefore encourage examples, displays and 'walkthroughs' of such work. The panel considers issues such as: - how are sensory prostheses and technologies of sensory substitution (e.g. TVSS) reconfiguring the sensorium? - what can art-science collaborations, including digital installations, teach us about rewiring the senses or expanding our modalities? - what are the implications for the public understanding of cognition, perception, and sensation? - given the availability of biometric data collection for everyday exercise (e.g. FitBit, Nike+), what are the implications for somatosensation and our somatic imaginary? - what is 'natural' about our sense modalities anyway? - how have the senses been historically mediated through technologies that help us map our neurophysiological understanding of the body? - what effective aesthetic examples are there of mashups, remixes, reconfigurations, of senses and affects? - for those with sensory disability or impairment, how can technologies of sensory prosthesis make aesthetic experience available? - what happens 'after' touchscreens? how do other aspects of the body become implicated or addressed in the human-computer interface (HCI)?

Brianne Gallagher, University of Hawai'i at Manoa
 "War 2 Home:" Soldier-Trauma, Rehabilitation Technologies, and the Biopolitical Management of the Senses in the War on Terror
This paper examines how the U.S. soldier's injured body becomes a productive and affective site of techno-scientific management and control within contemporary processes of militarization in the U.S.-led War on Terror. Specifically, it focuses on how the military-industrial-complex (MIC) interacts with what I term the military-medical-scientific-complex (MMSC) in order to treat the soldier's injured body as a patient-body that can be re-circuited back into military apparatuses of control. It analyses how the creation of new virtual rehabilitation programs for soldier's traumatic brain injuries, such as War 2 Home and Virtual Iraq, attempt to manipulate soldier's sensations of traumatic experiences of war through a multiplicity of new prosthetic and gaming technologies. Drawing on philosophies of new materialism, biopolitics, and feminist theory, it demonstrates how these virtual therapeutic technologies de-politicize the violent effects of the wars on soldiers' and civilians' bodies in Iraq and Afghanistan. In juxtaposition to the biopolitical management of soldier's traumatic injuries in the wars within advanced techno-science and late-capitalist systems, this paper concludes by turning to specific examples of veterans' sites of resistance to the de-politicization of trauma in the current wars. It examines two collaborative art projects by Iraq Veterans Against the War (IVAW), including a set of artworks titled "War is Trauma" and another project titled "Windows and Mirrors." Both projects shed an important light on how veterans collaborate with civilians injured in Iraq and Afghanistan in order to politicize and de-militarize U.S. militarism's violent effects in the world.

Todd Woodlan, University of California at San Diego

Accelerating Toward One Another: How new sensory possibilities created through biometric data collection affect posthuman subjectivities
This paper analyzes how the FitBit, a low-cost wearable accelerometer, is used by a group called Quantified Self to produce new notions of subjectivity and to redefine what it means to be human. This paper looks at issues of embodiment and changes to the sensory system that arise when the technology is combined with a post-human body to create new ways of experiencing the world, one's self, and Others. A large focus of the paper is looking at how this filtering of sense data through accelerometers and other movement tracking technology provides an opportunity to see posthumanism in terms of self/Other, not just in terms of human/machine/animal. In addition to sketching out a new sense of self that arises, the paper also deals with some of the ethical issues that arise and potential implications for areas such as artificial intelligence.

Alison Kenner, Drexel University
Postnatural Breathing in Late Industrialism: Insights from Asthmatics
This paper focuses on asthmatics' sense of environmental embodiment; the way in which their disease experience conditions sensational awareness in particular places: to mold, pollen, dander, or air pollution, for example. Perceptual shifts -- provoked by environmental triggers that stifle normal breathing – cultivates a form of 'sensational knowledge', which provides a foundation for disease management. This paper situates these embodied experiences, as well as the asthma epidemic, in late industrialism, a context in which "natural" is questioned and normal breathing is disrupted by biological conditions, ecological triggers, and sociopolitical contexts.

Session 6 (I)
Book Panel
Irina Aristarkhova's *The Hospitality of the Matrix: Philosophy, Biomedicine, and Culture* (Columbia UP, 2012)
Irina Aristarkhova, University of Michigan
Abby Goode, Rice University
Emnuela Bianchi
Sara DiMaggio, Pennsylvania State University
Heather Latimer, University of British Columbia

Session 6 (J)
Reproducing Anxieties
Chair: Robinson Murphy, University of Notre Dame

Julian Gill-Peterson, Rutgers University, & *Rebekah Sheldon*, Indiana University-Purdue University at Indianapolis
The Postnatural Child

This presentation sketches the range of issues surrounding the "postnatural" child in anticipation of a special issue on the subject. In contradistinction to Lee Edelman's psychoanalytically-inflected description of the child-figure in his *No Future*, we consider the postnatural child as a technology of contemporary biopolitics, which circulate through and territorialize as the child body in its sexualized, racialized, and gendered individuations. This way of understanding the child also shifts our focus from the question of *figuration*--and its ties to the promise of future redemption or the lingering pleasures of past sentiment--to the materiality of the child as a set of extractable biological, cultural, and technological resources. In "The Postnatural Child" we thus read the ways that the body of the child functions, if unevenly, as the threshold between the natural and the cultural, the human and its inhuman predicates, and the discourses of life that structure fantasies of national, postnational, human and posthuman belonging and reproduction. In our presentation, we take up as an example one of the most highly travelled thresholds: recent biomedical technologies of child development. In so doing, we implicate the child-figure at the heart of the temporal aporia generated by the crisis of the human's coming "after" nature, and we in turn propose a different modality of thinking the future of this crisis through the child as a figure that no longer only comes "before" the adult.

Scout Calvert, University of California at Irvine
Uneasy Kinship: Genetic Knowledges, Technological Naturalization, and Reproduction in the Post-Genomic Age
Human reproductive interventions and livestock breeding are converging together with desires for new kinds of genetic knowledge. Anonymous gamete donation, once thought to allow infertile couples to produce appropriate families, is now seen as a barrier to the kinds of knowledge needed for appropriate 21st century subjectivity. Novel technologies, like the Donor Sibling Registry and genome testing, enable those with new anxieties about decades old choices to fill some gaps in their knowledge, at the cost of inciting more anxieties. When data collected by the project suggested that some donors' sperm had been widely used, DSR participants worried about incest, genetic disease, and the meanings of kinship. By contrast, in livestock breeding worlds, high numbers of artificial insemination progeny inspire confidence rather than concern. More offspring suggests higher fertility and more data about possible genetic diseases carried by donor sires, qualities desired by humans as well. As reproductive technologies travel between human and livestock domains, information and genomic technologies find new uses in sperm banks. Statistical processing of cattle phenotype data has enabled accurate genotype prediction and the development of genomic marker tests for desirable traits. *In silico* modeling of virtual progeny using genomic data from prospective human parents can predict the traits of resulting progeny. Worries about incest, genetic disease, instrumental control over fertility, and too attentive selection of genetic traits mark uneasy boundaries between nature and culture. This paper will examine the competing desires and anxieties involved in the development and use of these reproductive and genomic technologies.

Marissa Brostoff, CUNY Graduate Center
Biopolitics After the Baby Boom: Rethinking Generationality in Environmentalist Discourse
Despite radical changes in human reproduction over the past 60 years, environmentalist discourse continues to imagine the steady emergence of human generations as a constant against

the backdrop of a changing planet. If, as Lee Edelman argues, political discourse in general is saturated with the language of reproductive futurity, claiming to represent "our children" and "our grandchildren," environmental rhetoric extends its sights still further. Recent queer ecocriticism challenges the ethical priorities established by this move. This project questions the presumption that "generations to come" are stable entities at all. To do so, I trace our dominant paradigm of generationality to its roots in classical sociology. For Karl Mannheim, strong generational identities emerge in periods of rapid social change. The converse, however, is not the case: "the speed of social change…is never influenced by the speed of the succession of generations, since this remains constant." Mannheim's generation is thus quintessentially modern in Bruno Latour's sense: It posits a one-way relationship in which technological dynamism exerts pressure on an immutable quality of nature, producing a phenomenon of sociological (but not biological) interest. It should be clear—now that China's one-child policy changed global sex ratios, scientists search for the genetic roots of super-longevity, and baby boomers are accused of undermining the welfare state by the crime of mass aging—that this model is insufficient. The shape that cohorts of future people will take is as much a moving target as the world those cohorts will inhabit, and must be theorized as such.

Session 6 (K)
Fluxus and the Specter of Duchamp
Chair: *Roger Rothman.*, Bucknell University

Fifty years ago, in 1963, George Maciunas released his Fluxus Manifesto into the world. For him, Fluxus had the potential to "purge the world of bourgeois sickness [and] promote a revolutionary flood and tide in art." What followed Maciunas' declaration were acts of poetry, performance and object making--almost all of which aimed to integrate art into life in ways that were informed by the Dadaists and Surrealists before them. One of the most interesting ways in which Fluxus artists integrated art and life involved the incorporation of science and technology. Maciunas, for example, was deeply interested in technologies of learning, and artists like Nam June Paik and Joe Jones made work that deployed electronics and motorized components. The *Grove Encyclopedia of Art* wrongly claims that Fluxus' lifespan stretched from the early 1960s to the late 1970s. On the contrary, as the name suggests, Fluxus continues today as an open and vital force affecting flow between art and life. In addition to papers on Fluxus itself, we have included contributions that consider the influence of Fluxus on other artists who engage science and technology in their work.

Anne Collins Goodyear, Bowdoin College
'Nine Evenings of Theater and Engineering': The Fluxus Connection?
In October 1966, "Nine Evenings of Theater and Engineering" took place at the Lexington Street Armory. This spectacular event, which enjoyed both great successes and failures, would seem to have a great deal in common with the Fluxus-inspired performances of Nam June Paik and others. Yet Paik played no role in this event, nor did he or other Fluxus artists become intimately involved with Experiments in Art and Technology, which grew out of "Nine Evenings." This

paper looks at the origins and results of "Nine Evenings" and its relationship to Fluxus, addressing the commonalities and distinctions in their historical trajectories and historiographies.

James W. McManus, California State University at Chico
Marcel Duchamp, George Maciunas, and Brian O'Doherty: Dealing Outside the Box in the Box
By the mid-1960s the hegemony of Abstract Expressionism, with its high drama of the painter directly engaging the oversized canvas destined for residency inside the art network's galleries and museums (what Brian O'Doherty labeled the "White Cube"), began to experience slippage. Reflecting a growing angst against this hegemony alternative propositions, breaking down and redefining attitudes about art's production, eradication of cherished attitudes regarding its value or function along with expanding the means and venues for its reception, took stage. Ramifications of these new challenges spread across the spectrum. Fluxus artists along with those near or outside its orbit met these new challenges. My attention is drawn to projects by three artists that relocate the venue for display outside the pristine architectural space of the "White Cube" - Marcel Duchamp's *Boîte-en valise*, George Maciunas's *Fluxboxes*, and Brian O''Doherty's *Aspen 5 + 6*. In this paper I argue, programmed to operate outside of the box and gathered together in transportable containers, the contents of each operate as the ingredients for labyrinth-like adventures orchestrated by each participant. – contributing to the Fluxus notion of working the space between art and life – its re-engagement with social time and space.

Salvatore Iaconesi, Independent Scholar
Objectified Poetics: Augmented Reality Fluxus Boxes
The term "intermedia" was coined by fluxus artist Dick Higgins to describe what was a really innovative approach in which arts started moving across materials, practices, technologies and genres, defining entirely new ones or even incredibly significative hybrids. FLUXUS artists worked with found materials with a DIY (Do It Yourself) approach, often establishing profound collaboration practices or experimenting the ideas of randomness and the recombination of everyday objects and events into artistic expressions. FLUXUS' assemblage and recombination of everyday objects and practices transformed the imaginaries connected to ordinary daily life, creating through aesthetics, experiences and interactions, additional dimensions in which any object or space could be perceived. Objects acquired the magical aura of art by simple recontextualizations or juxtapositions, as sounds, visions and other sensorial experiences aggregated through performance and interaction.
This disruptive approach to art and life was crystallized across a series for practices. The production of the so called Fluxus Boxes was one of them. Presented in occasion of the 50 years anniversary of FLUXUS, and now in the permanent collection of the NABA (Nuova Accademia delle Belle Arti) in Milan, AOS (Art is Open Source) has produced a series of Augmented Reality Fluxus Boxes, with the objective to research on the Fluxus Box approach, and to appy it at a "meta" level. The objects contained in the boxes act as tools through which the everyday objects become holdable, remixable, juxtaposable, recombinable meta-performances, encompassing possibly infinite remixed reenactments of Fluxus performances, experiences and events. The proposal focuses on the conceptual, methodological and technological aspects of this practice, as well as on its applicability to other contexts, allowing for objectified poetics which

propose novel forms of auratic experiences and possibilities for ubiquitous narratives and knowledge sharing practices.

Session 6 (L): The 2ⁿᵈ PostNatural DVT Screening and Panel (Digital Visualization Theater, Jordan Hall)
Keith Davis, University of Notre Dame, will be the panel moderator and introduce the DVT, then each artist/scientist/scholar will BRIEFLY introduce their work before it is screened. Panelists will take questions from the audience.

Katherine Brading & Matthew Meixner - *Mysterium cosmographicum*
Margot Fassler & Christian Jara - *The Cosmic Egg*
Micha Kilburn & Keith Davis - *Sonitope: Chart of Isotopes Sonified*
Molly Morin - *Spinning in the Dust*
Patricia Olynyk - *Eureka!: Or, Because Nothing Was, Therefore, All Things Are*
Steve Tomasula - clip from *TOC: A New Media Novel*

6 p.m.—7:45 p.m. **Reception**, The Snite Museum of Art

8 p.m.—9:30 p.m. **Keynote: Subhankar Banerjee, "Long Environmentalism"** in 101 DeBartolo Hall

Subhankar Banerjee, photographer, author, activist, and scientist, has exhibited across the U.S.A., Europe, Australia, and Mexico. His work addresses ecocultural urgencies, including resource wars and global warming in the Arctic and in the desert. Banerjee's books include *Arctic National Wildlife Refuge: Seasons of Life and Land* (Mountaineers Books, 2003—the accompanying Smithsonian exhibit was censored by the Bush Administration, revived by the California Academy of Science, and travelled throughout the U.S.); and *Arctic Voices: Resistance at the Tipping Point* (Seven Stories Press, 2012). He received a 2012 Lannan Foundation Cultural Freedom Award.

8 a.m.—6 p.m. **Registration Desk Open**, McKenna Hall First Floor

9 a.m.—6 p.m. **Book Exhibit**, McKenna Hall Downstairs

Session 7 - Saturday - 9am-10:30am

Session 7 (A)
Before the 'After': Exploring the Pre-Natural in Early Modern Literature
Chair: Karen Raber

What is the prehistory of the postnatural? This panel examines three cases that establish the historical roots for a variety of issues we usually think of as entirely postmodern--the problematic role of accuracy in observation, the uncomfortable potential in very early versions of systems theory, the ways in which representations of animals in "natural histories" end up suggesting "nature" is not natural at all. The panel thus not only offers historical grounding to the conference's theme, it challenges some of its most important premises.

Douglas Duhaime, University of Notre Dame
Dark Hermeticism: Alchemy and Ecology in Elias Ashmole's *Theatrum Chemicum Britannicum*.
Recognizing that there is a growing body of literature on "Green Hermeticism" that tries to identify the ways the hermetic tradition anticipated a wide range of modern ecological arguments, this essay argues that hermeticism has a much more ambivalent relationship to ecological thought that the Green Hermeticists would have us believe. Looking at some of the alchemical literary works collected in Ashmole's volume, and drawing off the work of scholars like Carl Wennerlind and Lisa Jardine, I argue that while on the one hand hermetic alchemy envisioned a unified cosmos full of feedback loops and mutual dependencies, on the other it helped call into being a philosophical tradition that seeks to dominate and exploit the natural realm. In fact, I argue, although hermeticism offered us a way of envisioning the world as a complex series of interrelated dynamic systems, it also produced some of the most ecologically catastrophic historical formations of the modern period, such as modern debt based currency systems. In sum, I argue, tracing the proto-ecological orientation as well as the exploitative metaphysics of early modern hermeticism, we can work to elaborate the important work being produced by those involved with the Green Hermeticist movement.

Erin Drew, University of Mississippi
Thomson's Scientific "Truthiness": Science, Poetry, and the Role of the ʻRealʼ in Critical Responses to *Seasons*, 1756-1790
A curious refrain runs through the praise heaped on James Thomsonʼs Seasons (1746) in the second half of the eighteenth-century. Besides being beautiful and instructive, the refrain goes, The Seasonsʼ descriptions of nature are scientifically accurate, and in that accuracy lays a portion of their artistic power. The consistency of the refrainʼechoed by critics from Joseph Warton to John Aikinʼsuggests that Thomsonʼs reputation as the premier nature poet in the second half of the eighteenth century rested in large part on the way his mixture of visual and scientific detail lent an effect of actuality to his descriptions. In this paper, I will argue that the tendency of eighteenth-century critics of The Seasons to attribute aesthetic value to the effect of actuality for its own sake is a crucial but neglected episode in the history of the emerging relationship between science and poetry as well as in the emergence of realism as the dominant literary mode of the period. By exploring the role of accuracy in critical receptions of Thomson, this paper will elucidate the way poetry and science combined to make actuality an important measure of

aesthetic value in the eighteenth-century. Furthermore, attending to the history behind scientific accuracy's emergence as a poetic value--one still widely applied to texts of all eras in twenty-first century ecocriticism--will, I hope, make it possible to better understand the aesthetic criteria and ideas of natural "reality" that underpin older instantiations of "nature writing," allowing us to begin to excavate the PRE-natural's relationship to the POST-natural.

Karen Raber, University of Mississippi
What's 'Natural' About Early Modern Natural Histories?
Early modern natural histories, especially those non-Baconian compendiums concerned with the animal kingdom, have rightly been classified as maps of the natural world composed through the collection of massive amounts of often fictional information. Unlike their more "scientific" counterparts in Baconian experimental philosophy, these texts are often treated as quaint curiosities, even while their contents are dissected and distributed in scholarship on early modern animals' roles in culture and literature. In this essay, however, I suggest that we take seriously such natural histories as representations of "nature"—but a nature that is so profoundly diverse, heterogeneous, fictive, and above all social that it is unrecognizable to our own generation, imperfectly liberated as we are from privileging "scientific method" in our quest to discover what "nature" is. As Laurie Shannon has recently observed, early modern investment in a version of nature that exists in structural opposition to, and outside of "the human" breaks down when animals enter the picture. However, where Shannon concludes that animals are "incompletely assimilated" to ideas of nature, I use natural histories to demonstrate that nature may have never been completely "natural" in the first place—that early moderns always conceived of nature in profoundly humanized, social terms that belied the supposed opposition to "the human" by which it was defined. Natural histories, I suggest, therefore raise the specter that our idea of "post nature" is an iteration of, rather than a radical break with, the past.

Session 7 (B)
Contemporary Art and the End of Nature
Chair: Kate Mondloch

This panel defines the postnatural as a form of visuality that has developed through the confluence of new media aesthetics, biotechnology, and discourses surrounding ecology and sustainability. The panel investigates how contemporary visual culture — in taking up the 'end of nature' thesis — conceptualizes the boundaries between ecology and technology, animate and inanimate, and organism and machine. Three papers range across bioart and slow food, cyborg sculpture and feminist theory, and 'unnatural' animation and ideas of the undead in contemporary art.

Kate Mondloch, University of Oregon
We Are Family: Patricia Piccinini's Unbecoming Human
The Australian multimedia artist Patricia Piccinini creates imaginary hybrid lifeforms, working across various media to stage a variety of transspecies encounters. Perhaps not surprisingly,

critical reception of her work has focused on the viewer's complex affective and emotional responses to these "non-human" creatures. Critics tend to theorize the artistic experience in generous, ostensibly progressive terms, discerning empathy, kinship, care, and parenting in the face of technoscience experiments gone awry. What are the critical stakes associated with these prevailing, positive judgments? Through detailed analysis of the artist's *We Are Family* exhibition (Venice Biennale, 2003), I show how these dominant critical readings betray a symptomatic anthropocentrism, and may even be read as neoconservative. Through reference to specific artworks, I will show how Piccinini's practice exceeds these well-intentioned yet reductive frameworks, and gestures toward a form of artistic experience more accurately described as a non-anthropomorphic posthumanism.

Gabrielle Gopinath, University of Notre Dame
The Undead Image
This paper addresses the tendency towards animation, or what I would term 'galvanization' in much contemporary art. That is to say, the use of digital images and screens effect the unnatural animation of things (paintings) that are normally static -- as seen in the recent work of Marco Brambilla, Peter Greenaway, and Werner Herzog. I am thinking of the GIF image with its limited range of jerky, repetitive motion as a bellwether for the contemporary preoccupation with the image as undead, post-natural phenomenon.

Ron Broglio, Arizona State University
A Final Frontier: Art beyond Culture
"Secretly or not... it is necessary to become different or else cease to be." –Battaille. The final frontier of the human is the nonhuman. If we conquer the nonhuman then it is not a *final* frontier but rather a repetition of the human conquest that takes place in every space we explore. (See species extinction.) We plant the flag of culture across space and time and call it history and civilization. The final frontier is final only when we get over ourselves. It is final when we give ourselves over to the nonhuman, when we go native in the frontier, when we arrange our human world according to that which we are not. Do we have the hospitality to let the nonhuman change the parameters of culture and reconfigure how we dwell? Can art as a cultural practice give itself over to that which is outside of culture? This talk will explore how art offers a hospitality by which we can think, dwell, and become beyond the human.

Session 7 (C)
Landscape Objects
Chair: Andrew E. Hershberger

Andrew E. Hershberger, Bowling Green State University
Picturing Geological Time: Landscape Photographs in Rare 19th-Century Geology Books
After photography was invented circa 1839 but before photomechanical reproductions such as halftones became readily available circa 1890, authors who wanted to include photographs in their books had to "tip in" or glue into their pages actual, original photographs. Highly prized

today by rare book and photography collectors alike, this presentation will interpret the significance of numerous original photographs found in two such publications: *The Yosemite Book* (Whitney 1868) and *Sun Pictures of Rocky Mountain Scenery* (Hayden 1870). In terms of the nineteenth-century debates regarding geological time and whether the remarkable landscapes of the American West had risen and/or fallen--relatively quickly or ever so slowly--these two publications argue that "the æons of time in which they were effected are simply infinite and incomprehensible to us" (Hayden 1870, 149). Building upon Alexander Sekatskiy's claim that photographs can provide "a glimpse of another time scale" (2010, 81), I will argue that the American geologists who authored *The Yosemite Book* and *Sun Pictures of Rocky Mountain Scenery*, Josiah D. Whitney (1819-1896) and Ferdinand Vandeveer Hayden (1829-1887) respectively, both early recognized this time-scale-ability in photography. Both Whitney and Hayden hired prominent photographers, Carlton Watkins (1829-1916) and Andrew Joseph Russell (1830-1902)--photographers whose works are now widely celebrated in art museums worldwide--to capture the landscapes that they discussed within their publications. Indeed, both Whitney and Hayden intimated that the photographs in their books would facilitate their readers' comprehension of the almost-unimaginably long and slow motions that had occurred during "geological time."

Randall Honold, DePaul University
Photographing Objects
Object-oriented ontology (OOO) and speculative realism (SR) are leading to new focus on objects. Objects are simple or complex, tiny or massive, conceptual or physical. Assemblies of objects become discrete objects; disintegration of objects leads to even more objects. No object shows itself to us or other objects completely. Photography offers unique access to the "lives" of objects in three ways: 1) the process of making photographs renders objects visible that would otherwise be unnoticed or even hidden; 2) photographs become objects in their own right, both illuminating and obscuring their subject matter; and 3) photographs become part of new assemblages - new objects - which include the object(s) photographed, the camera, and the photographer. This leads to another three-fold movement: 1) photographers photograph objects; 2) objects want photographers; 3) photographers self-proliferate by becoming photographing objects. My presentation of words and images about photographing objects will be from from a framework shaped by OOO/SR and the criticism of W.J.T. Mitchell. I will focus on the self-begetting of objects that takes place in the activity of photography. And I will suggest this way of understanding photography helps us envision a postnatural future - one that is ironically not yet natural, and all the better for it.

Maria Whiteman, University of Alberta
Nature's Parallelisms
In this paper and art work (large format photographs) I want to discuss how science and technology were used in the 17th century in Versailles to control nature under Louis XIV and draw out comparisons to how in the contemporary mode science and technology are used to expand and progress the oil sands in Fort McMurray in Alberta. I will show images that I have taken in both locations (Versailles and Oil Sands) and place alongside each other. The questions my paper raises are: What form organizes the difference between these two images? Is it a question of causality, the oil sands an automatized amplification of tendencies already latent in

seventeenth century rationalism? Is this desert the hideous flower of classical reason? Is it an image of two dispensations of power, the one centralized, spectacular, and paradigmatically political, the other de-territorialized, clandestine, and economic, the despotism of market necessity? Is it an either/or? Is there a nostalgia, here, for the political, for the sovereignty that would be necessary to overcome the decentralized oblivion of growth? Is there, here, a quiet call to a return to form, to a political humanism of the willed effect, the strength of the act? Or are politics and economics both forms of the same tragic fantasy of centrality, the bad hubris of anthropocentrism? Indeed, one might ask whether or not these are even separate times? Are they, perhaps, instead coeval spaces, fully globalized locales?

Adam Zaretsky, ITP-New York University
Forced Interspecies Symbiosis Transgenic Solar Animal Vegetable Environmental Microinjection Organismic Personality Behavioral Audio Integrity Test
Simply put, the research program 'BioSolar Cells' (BSC) in the Netherlands aims to understand photosynthesis and use synthetic biology or genetic engineering to increase the energy we can siphon from the sun through the enhancement of plants, algae and solar collectors. This seems like a program that invites support. Many people that I talk to are heartily in favor of any alternatives to our current unsustainable fossil fuel economy. I want to believe that focused technical achievement resulting in a net increase of photosynthetic yield is helpful and beneficial to humans and earth based life forms. But, just the color of algae and plants (their being green) and the mention of solar energy, does not automatically make their scaled up refinery into a 'sustainable' factory system a pollution free renewable resource. The level of bullshit detecting should be high because the claim is one that strums on our heart strings. Are these new technologies worth developing? Will they clean up the environment or just give us next generation 'Green' GMO pollution? Revealed: the art process of Green GMO and Green forced symbiosis production, public microinjection labs, permits for exhibition and behavioral containment design. SuperPlants http://www.youtube.com/watch?v=6LrJ2UBxM6E Errorarium http://www.youtube.com/watch?v=8g1XIpbI_rk engineering the bipolar flower http://www.youtube.com/watch?v=I0L5hQjJZ6o solar zebrafish death http://vimeo.com/18748540 solar zebrafish life http://www.youtube.com/watch?v=2x2kZnlcC0o interview with Dr. Ir. Bert van der Zaal http://www.youtube.com/watch?v=mgvmvS0nEaQ mutant beauty pageant, Hortus Botanicus, Leiden http://www.youtube.com/watch?v=jbJqzTz-XD4 Royal Transgenic Aesthetics http://www.youtube.com/watch?v=KLUNwEmt5UM Control's Drift https://archive.org/details/ArtAndGeneActionPathwaysToExpression-TranshumanistPosition Adam Zaretsky @ Biosolar Cells http://www.biosolarcells.nl/onderzoek/maatschappelijke-aspecten/artist-in-lab-making-a-field-of-interpretation-for-biosolar-cells.html

Session 7 (D)
Critical Game Studies 3: Queer Videogame Ecologies
Chair: Stephanie Boluk, Pratt Institute

This is one of a series of four panels dedicated to critical game studies. The panel features a range of approaches varying from the historical and theoretical to the artistic. Participants include both game designers and scholars. The function of the series is to analyze how games operate in contemporary information economies and undertake a rigorous analysis of how games as a cultural as well as technological apparatus speak to larger political, cultural, and aesthetic issues.

Edmond Chang, Drew University
"Queer Glitches, or, The Recuperation of Vanellope Von Schweetz"
Alexander Galloway in "Language Wants To Be Overlooked" argues of digital code to "not to exclude the cultural or technical importance of any code that runs counter to the perceived mandates of machinic execution, such as the computer glitch or the software exploit, simply to highlight the fundamentally functional nature of all software (glitch and exploit included)." In other words, how might glitches and exploits in computer programs, particularly in video games, be theorized as queer? Video games in many ways are normative, structured, and deeply protocological even as gamers and game developers evince their promises of power, freedom, play, and agency. This paper takes the glitch as more than an accident, interruption, or unwanted malfunction. Looking at the 2012 video game-inspired animated feature Wreck-It Ralph, the "minus worlds" of Super Mario Brothers, and indie games like merritt kopas's Lim, this presentation imagines the glitch as potentially denaturalizing, productively destabilizing of the technonormativity of games and considers the perils of "fixing" these queer glitches.

Christopher Schaberg, Loyola University at New Orleans, & *Timothy Welsh*, Loyola University at New Orleans
Is Flight Post-Natural? or, Air Travel's New Media Dilemmas
In April 2013 an article made its way around the internet with the startling title "How a Single Android Phone Can Hack an Entire Plane." Less interesting than the truth value of this article was the provocation it presented: that commercial air travel is now dangerously unmanned. Aircraft have always depended on a litany of complex, networked technologies to give passengers more or less smooth, reliable flight. Yet the perceived threat posed by an ordinary phone reveals weird anxieties about a situation that has always been, in a sense, post-natural. In this paper we look at several new media contexts that comment on the mundane and naturalized dimensions of contemporary air travel. In addition to the above article, we consider airport scenes in Call of Duty: Modern Warfare 2, Left 4 Dead, and Max Payne 3, the rhetoric around the Boeing Dreamliner, and two quasi-surveillance sites called "FreakJet" and "passenger shaming." These texts stage compelling conflicts between the technological, the biological, the social, and the environmental. Human flight is itself arguably a post-natural phenomenon (enabled by technological ingenuity and Empire), one that is now of central concern to questions of sustainability. Typically air travel seems either to be accepted as inevitable because extant, or seen as complicit in and axiomatic of an always already occurring fossil fuel driven disaster. Carving a space between these two positions, this paper meditates on the strange place of flight in a digital ecology and post-natural imaginary.

Amanda Phillips, University of California at Santa Barbara
The Great Opening Up of Nature to All Mobs: Minecraft and Algorithmic Ecology

The title of this paper draws from the description Electronic Music Foundation President Joel Chadabe gave to electricity's contribution to music production: "the great opening up of music to all sound." In a similar way, computational representations of natural environments open up new orientations toward the environment that easily read as fantasies of capitalist frontier expansionism enabled by the reduced material constraints of the digital. The origins of a continuously expanding ecology might be seen in the early text-based Internet's ability to add rooms to a MOO or MUD with a single command. Mojang Specification's Minecraft takes a different approach to ecological generation, with procedurally expanding environments that are theoretically infinite but bound in practice by the data types used to calculate their generated "chunks." This plentiful ideal is reflected even in the game's crafting system, in which resources open up into increasingly small parts of themselves: one block of wood, for example, will yield 4 wooden planks, which can be crafted into 8 sticks total, and so on. At the same time as it creates a world ripe for the calculation of yield values, Minecraft's algorithms produce stunning empty vistas that substitute spawning "mobs" (short for mobile units) for reproduction, stagnation for evolution, drop probabilities for history. Oriented away from heteronormative and capitalist temporalities, this algorithmic ecology – a postnature itself – opens up nature not only to human occupation for productivity, but to the trivial, nonproductive wanderings of digital inhabitants.

Session 7 (E)
Out With the Old: Consuming New Natures
Chair: Lucinda Cole

This panel features papers from animal studies, waste studies, and environmental history, all of which explore different aspects of consumption and its by-products, past and present. One paper examines the liminal position of carrion, another explores the footprint of information technology and its waste, the third investigates the emergence of artificially produced fish out of a wasted natural environment.

Christopher Morris, University of Texas at Arlington
A More Perfect Fish: The Reinvention of the Mississippi Catfish
Since the colonial era in the eighteenth century, lower Mississippi Valley landowners had kept fish ponds for raising and storing fish primarily for their own use. Ponds contained a variety of species, and generally mimicked the fish habitat of area lakes and rivers. When the Mississippi River flooded, it replenished ponds with water and life, blurring the boundary between human and natural environments. In the mid-twentieth century, many landowners began to raise fish for commercial purposes, to supplement a farm income that was declining in part because of environmental degradation. By the 1970s, catfish farming in the Mississippi Valley was scientific and industrialized, and it had become the largest fish farming industry in the United States, surpassing salmon and trout farming. Mississippi Valley fish farmers closely followed the guidelines of scientists and agricultural extension agents working for the US Department of Agriculture, Mississippi State University, Louisiana State University, and other research institutions, in an effort to make their operations as efficient as possible, which meant developing the perfect catfish, one that fed on corn scattered on the surface on ponds, and which thrived in

environments in which there were no other fish, indeed, no other animals of any sort. Catfish were thus reinvented as postnatural, raised and maintained in isolation from nature. Marketing campaigns sold a new and improved postnatural catfish to skeptical consumers. The end result, however, was the replication of the very same environmental problems that had undermined agriculture, including dependence on chemical additives that further degraded the Mississippi River system and the Gulf of Mexico. The reinvention of the Mississippi catfish as a postnatural fish for late twentieth century consumers entailed the further wasting of the natural environment from which catfish were abstracted.

This paper is based primarily on the reports of agricultural scientists working in the catfish industry, and on catfish marketing campaigns from the 1960s to the 1990s.

Lucinda Cole, University of Southern Maine
Carrion, Taste, and Waste
Carrion-eating has long played an important role in defining class status; more recently, it has begun to be a subject of conversation in environmental circles where, like freganism, it raises a host of legal and cultural issues about "nature," taste, and a sustainable diet. Focusing on carrion eaters in the more-than-human world, this paper explores relationships between class and species being.

Rajani Sudan, Southern Methodist University
The Browning of America
How does cyberspace reconceptualize social relationships, including how individuals cognitively map space? How is it created and what power relationships generate this common spatial reconfiguration? This paper uncovers how computer technology, including cyberspace, reconstruct geographical, economic, environmental, historical, and political space. I argue that while we may think of cyberspace and the information generated from computer technology as abstract concepts, in fact their spatial dimensions are material. The capacity to store data in computers appears limitless, and certainly--in contrast with the space that paper occupies--far more efficient, but other spaces are being altered or destroyed in the service of that efficiency. The need to account for the spaces computer technology occupies is critical to every user of digital media and every scholar of environmental studies; this paper begins to make plainly visible the multiple costs that this high-tech economy incurs. This paper offers a broader eco-critical understanding of the kind of relationships we have developed with computer technology. Supporting the infrastructure of modernity for at least the past eighty years, computer technology has radically transformed the ways we engage with one another and imagine space. We tend to read these transformations in the realm of personal relations: how technology transforms our interactions with one another through the medium of cyberspace. Cyberspace, however, is neither empty nor abstract; it is constituted by mining camps, faunal reserves, Foxconn cities, young children burning computers for metal, and corporations striking dodgy deals with warring nations. Our personal interactions with computer technology, therefore, are also taking place in those spaces.

Session 7 (F)
From Machines to Media: Mechanology, Technics and the long history of Media Studies
Chair: Ghislain Thibault

The proposed panel will explore the relationship between mechanology and theories of mediation. Mechanology – the science of machines - has long been proposed as a compliment to philosophies of technology going back to the 19th century. Recent work by Bernard Stiegler and Mark Hansen among others has explored how philosophical engagements with machines and technics – particularly the work of Gilbert Simondon - might contribute to understandings of contemporary information and communication technology. This panel will explore the ways in which this work belongs to a much longer history of reflection on the relationship between machines and the study of media. This panel will deepen existing analyses of the relationship between media, materialism and the philosophy of technology.

Mark Hayward, York University
Kinematic/Cinematik: Mechanics and Cinema
The relationship between Cinema and mechanics goes back to the late 19th century. Sharing a common name, the study of movement was as fundamental to the early development of the philosophy of technology as it was to the emergent media form. Marta Braun, among others, has convincingly argued that these two approaches to movement (kinema) first converged in the late nineteenth century in the work of Etienne-Jules Marey and Eadweard Mybridge where the living body served as the focal point for reflection on representation and mechanical systems. This paper moves beyond these early experiments to explore the ongoing relationship between the kinematic and the cinematic. Looking at the work of Arthur Elton for the Shell Film Unit in the 1930s and the mechanological cinema of Jean Lemoyne in the 1960s, this paper considers the changing parameters of kinematic/cinematic relation in the 20th century in order to explore how such films challenged assumptions about the place of machines and technical systems in society.

Ghislain Thibault, Wilfred Laurier University
Passive Media: Movement and Inertia in Information Technologies
Jacques Lafitte's Reflections on the science of machines, published in 1932, suggested a classification of "machines" divided in three general divisions: passive, active and reflex. Passive machines included those human constructions that are independent of a constant flux of exterior energy, such as roads, primitive shelters, poles, bowls: while they do not move, they afford and orient the motion of others either by their form, mass or volume. Gilbert Simondon later considered the awareness of architectural bodies as machines to be Lafitte's fresh contribution to a philosophy of technique. This conceptualization of passive machines offers an articulation of the form/function correspondence that was also identified by others in the interwar period (for instance Le Corbusier, Lewis Mumford, Siegfried Giedion). This paper argues that Lafitte's theorization of passive machines as agents of movement offers a framework that may help to weave a common genealogy for machines and media. While early information and communication technologies (telephone, telegraph, radio) have generally been overlooked as machines by mechanological studies, media theories have often articulated how their seemingly passive materiality have shaped our experience of time and space (the figure/ground theory of

media by Canadian Harold Innis, for instance). A reading of passive media from a mechanological perspective, this paper looks at the mediation of materiality, inertia and movement in information technologies.

Andrew J. Iliadis, Purdue University
An Abstract Machinist: Simondon's Informational Artifacts
Gilbert Simondon (1924 – 1989) was one of the earliest and most prolific respondents to cybernetics and information theory more broadly construed, particularly on the work of Norbert Wiener and Claude Shannon. However, rather than debating the mathematical theory of communication from a cybernetic perspective, Simondon instead focused on what an information-theoretic approach would mean for an ontology of technology. The result of this is that Simondon can be read as an early precursor to what we know of today as design modeling in computer science, particularly as philosophized by computer scientists like Luciano Floridi in The Philosophy of Information (2011) and Brian Cantwell Smith in On the Origin of Objects (1995), an approach that is described by Floridi as informational structural realism. Floridi agrees that Simondon offered an early model of informational realism – broadly understood as "concretization" – that necessarily spoke to the ontology of technics, and he did so by philosophizing the mechanologies of thinkers in the history of science such as Albert Ducrocq, James Clerk Maxwell, Allen DuMont, Robert Stephenson, and Michael Faraday, thus producing a rigorous and erudite philosophy of information artifact ontology well before the current interest in ontology as informed by computer science. Analyzing Simondon's abstract engagement with the history of technology and the ontology of technics, this paper adds to our knowledge of the history and philosophy of design, as well as to our understanding of the beginnings of the informational turn.

Session 7 (G)
Veganism, Locavorism, and the Fraught Ethics of Food
Chair: Karalyn Kendall-Morwick

This panel explores the contentious ethics of what has come to be known as the sustainable food movement--a homogenizing term that belies the broad range of approaches to food ethics and the deep-rooted tensions between some of these approaches. In particular, this panel focuses on veganism, locavorism, and the often contentious relationship between the two, as well as between these and other social justice movements. Kara Kendall-Morwick examines critiques of veganism in contemporary sustainable-food writing, exposing the "straw vegan" figure at the center of such arguments and calling for more constructive dialogue between vegans and selective omnivores. Alyce Miller analyzes arguments by feminists who oppose veganism as an unsustainable diet supported by white privilege and detrimental to women and other marginalized groups, drawing on work by contemporary feminist vegans to problematize such arguments. Finally, Ellen Bayer discusses the challenge of examining food choices in the classroom. Based on her experience teaching a course on food ethics to an initially resistant audience of college freshmen, she outlines three pedagogical strategies for encouraging students to think critically about their food choices. All three panelists share an investment in fostering

productive conversations about food ethics and sustainability, both within and beyond the classroom.

Karalyn Kendall-Morwick, Washburn University
The Straw Vegan and the Rhetoric of Selective Omnivorism
This paper analyzes the rhetoric of arguments against veganism in sustainable-food writing by proponents of ethical meat — most notably Barbara Kingsolver (*Animal, Vegetable, Miracle*) and Michael Pollan (*The Omnivore's Dilemma*). Most vegans and selective omnivores share a commitment to supporting ethical farming practices and reducing the impact of their food choices on animals and the environment, yet it has become commonplace for prominent voices in the sustainable-food movement to distance their position — often forcefully — from veganism. The "vegan takedown" is an almost compulsory feature of locavorist treatises like Kingsolver's and Pollan's, and it is frequently marked by an abrupt rhetorical shift. Kingsolver, in particular, treats vegans with even more disdain than she does the conventional-produce and factory-farmed-meat buying public in her chronicle of a year of farm-to-table living. Even Pollan's more charitable discussion of veganism is tinged with condescension and culminates in a trite disavowal. These critiques, moreover, often rely on egregious logical fallacies, factual inaccuracies, and the tired figure of the straw vegan—an invariably feminized stereotype of the self-righteous vegan who smugly extolls the virtues of an animal-free diet while subsisting on processed faux meats, unaware of her hypocritical complicity in the animal suffering and environmental degradation involved in the industrialized production of plant-based foods. In this paper, I trace this stereotype to its origins in the puritanical ethos of early vegetarian movements in 19th-century America, helping to explain its deep-rooted rhetorical potency. I then analyze the anti-vegan arguments of Kingsolver and Pollan, demonstrating how they fail to make the case against veganism and arguing for more productive dialogue between vegans and selective omnivores as they work toward distinct but overlapping goals.

Alyce Miller, Indiana University
Food Fight: Feminists Versus Vegans
It might be easy to assume a natural alignment between feminism and ethical vegetarianism/veganism, yet a number of contemporary feminists, under the broad aegis of social and environmental justice, have declared war on vegetarianism and veganism, describing them as oppressive to women in general, as well as racist and classist toward women of color and women in poverty, in particular. Other linkages include discourses on unsustainability, racism, and environmental degradation. Many of the arguments turn on the idea that veganism is a privileged choice, one that is, at once, unsustainable, andro-centric, expensive, exploitative, eccentric, labor-intensive (for women), and even downright unhealthful. While larger matters of access to good, nutritional food for everyone, along with sustainable farming practices, are serious, and the discourse is often dominated by big agri-business, and corporate interests and dollars, blaming veganism for the failures of our food industry to provide good, accessible food to all in the richest country in the world seems short-sighted. That feminists are making the arguments is particularly intriguing. In this paper, I will present and examine some of the most common anti-vegetarian/vegan arguments laid out by several white feminist thinkers and writers, in particular, Kathryn Paxton George (*Animal, Vegetable, or Woman?*), Kathy Rudy (*Loving Animals*), and Lierre Keith (*The Vegetarian Myth*), using discourses of oppression, sustainability, fair trade,

etc., to discount any benefits of vegetarianism and veganism. The slow-food/omnivore movement has only reinvigorated the debates. By way of argument, I will draw on works by contemporary feminist vegans (of various colors, orientations, interests, approaches), including Carol Adams and Marti Kheel, and emerging voices like that of Amie Breeze Harper, to help illuminate the problems with some of those arguments, while exposing the problems of class, race, etc., as they specifically pertain to food availability and consumption.

Ellen Bayer, DePauw University
From Involuntary Action to Conscientious Consumption: or, How Students Learned to Stop Worrying and Love the Vegan Cupcake
"Eating is, for us, an involuntary action." So began the first class meeting of my First-Year Seminar, titled, "The Ethics of Food." During the development stage, I imagined that a course with such a title would attract students with a genuine interest in exploring the ethics of the production, distribution, and consumption of food. The reality I faced on day one was that these students had not only given no thought to their food choices, they were, in fact, somewhat hostile to the idea that eating should be anything more than a mindless, automatic exercise. How, then, could I challenge a group of eighteen-year-olds to recognize that their food choices matter? This paper offers strategies for exploring issues of food ethics with one of the most resistant of audiences: the college freshman. By detailing three pedagogical approaches to exploring the ethics of food with college students, this essay provides a framework for appealing to a resistant audience and highlights the intended outcomes. I first present selected assignments that focus on rhetorical analysis as a means for illustrating to students the complexity of food choices. The essay then examines the benefits of providing students with opportunities to interact with food producers and distributors. Finally, I demonstrate the ways in which a service-based project can give students the space to share their new insights with another potentially resistant audience— their peers. Ultimately, this essay aims to provide pedagogical tools that can help to facilitate meaningful discussions with our students about why their food choices are choices and why they do, indeed, matter.

Session 7 (H)
Denaturing the Apocalypse: Towards a New Poetics of Unsustainability
Chair: Susan Vanderborg

There are numerous contemporary descriptions of apocalypse and natural devastation. But what would be the *form* of a poetics of apocalypse, defined specifically in terms of the end of the natural, a poetics that foregrounds its own unsustainability? In *Chaos Bound*, N. Katherine Hayles famously argued that the key trait of cultural postmodernism is that it "denature[s]" narrative by denaturing "language, context, time, and the human" (294). "In a fully denatured narrative," she proposed, "one would expect the language to be self-referential; the context to be self-consciously created, perhaps by the splicing together of disparate contexts; the narrative progression to be advanced through the evolution of underlying structures rather than through chronological time; and the characters to be constructed so as to expose their nature as constructions" (294). Our three panelists analyze texts that denature various constructions of

apocalypse--an idea that has always seemed quintessentially defined by metanarratives, teleology, and, in its etymological root, discovery or revelation. The denatured apocalyptic texts we study, in contrast, continually undermine any narrative trajectory, expand self-referentially from their own generative constraints, and separate information from meaning. Instead of discovery, they obscure; instead of a definitive ending, they create a poetics of broken feedback loops, tautologies, ongoing crises, and never-ceasing constructions that acknowledge their own provisional status, their unsustainability.

Joao Paulo Guimaraes, SUNY-Buffalo
Apocalyptic Laughter: Jokes of Language and Jokes of Nature in Ed Dorn's *Gunslinger*
Guimaraes focuses on an apocalyptic poetics of anomaly and mockery in his study of Ed Dorn's *Gunslinger*, a text published serially during the late sixties and the first half of the following decade. He argues that Dorn tries to counteract modernity's violent conversion of the natural world into a garden of useful information, homogenous forms, and burned-out resources. But what does it mean to move beyond a familiar language of apocalypse, as one character insists: "Me sees / past the curtain" of "a certain destruction" when "the hills have been upended" and "no longer" rest "upon / the plates of their own dynamic principles"? Guimaraes contends that Dorn "denatures" current stereotypes of the natural by returning to a pre-17th-century conception of nature as science's comic foil, producing hybrids, sports, and singularities that violate scientific principles and categories. Dorn replicates these comic aberrations and hybrids in his own language games. *Gunslinger*'s linguistic particulars, Guimaraes argues, are pointless and tautological: literalized puns, spelling errors, abrupt shifts in font and type size, and archaisms mixed among scientific jargon, pop culture references, and foreign expressions, all of which destabilize any overarching narrative. The book remains recalcitrant and aimlessly repetitive. Readers do not get concise facts but "further datadata." Instead of an apocalyptic "big Ascension Day Burn," Dorn presents ongoing "stark," "energetic," and error-prone "Fenomena" that parody a language of closure (165). Poetic "rhythm," he emphasizes, has a punning "duty to de-tour the Vast / Contra Naturum" (sic) of America's industrial war machine.

Ming-Qian Ma, SUNY-Buffalo
"no sustaining": Time as Saturated Phenomena in Leslie Scalapino's *New Time*
Ma defines a poetics of unsustainability in Leslie Scalapino's book *New Time* (1999). This text specifically denatures the idea of time progressing toward some teleological, apocalyptic endpoint. Rather, Scalapino emphasizes time as "phenomenal" rather than in terms of some "interpretative fixing." In her phenomenology of time, all phenomena appear as given to us, "unconditionally," according to Jean-Luc Marion, "[showing] themselves from themselves at their own initiative." The result is excess--spatial phenomena so saturated as to be unsustainable by any human design. How, then, does Scalapino's poetry represent this? In *New Time*. the saturated phenomena of time find expression in distributed patchworks of "incomprehensible" "nows" that are "sensory-language-physical-objects," graspable only through auto-affection or impressional consciousness. Each language segment, be it a phrase, a sentence, or a paragraph, does not constitute an interpretative or analytical unit. Instead, it presents an embodied unit of auto-affective thickness or impressional density in response to a mode of temporal appearing, as evidenced, for example, in phrases such as "blue-destroying" or "running to the rise." The

saturated phenomena of time, as Michel Serres contends, assume the contour of a "liquid multiple," taking on layers of physiognomic "texture" based on the ecological environment in which the "nows" leave their fleeing traces. "There is no real except this," the poet asserts, and this "real" is defined as a process of "no sustaining." The unsustainability of the saturated phenomena of time thus characterizes the "only life" beyond apocalypse.

Susan Vanderborg, University of South Carolina
apostrophe, Unsustainability, and a Poetics of Apocalypse
Vanderborg explores a poetics of apocalypse in the website/book *apostrophe* (2006) created by Darren Wershler and Bill Kennedy. There is nothing organic or teleological about the poem, which grows exponentially by foregrounding the constructedness of its procedure. The phrases of an earlier poetic text written by Bill Kennedy become hyperlinks; when one clicks on a particular phrase-link, a "hijacked" Internet search engine creates a new poem generated by its compilations from that phrase. The poem's apostrophes (each phrase begins with "you are") never offer solutions or end points. Instead, they create a cacophony of truncated self-help truisms, reviews, warnings, and advertisements that respond to artificial crises whose contours are never fully revealed: "you are bleeding"; "you are about to run him or her over"; "you are refusing protection and wandering about the city without a shred of defense." At first, the authors envision a poem "potentially as large as the Web itself," but the poem's growth is revealed as eventually unsustainable, since the process breaks down when the search engine "begin[s] to cannibalize" the poem's own on-line iterations. "Like most hopeful monsters" of the new apocalypse, Wershler and Kennedy write, "the apostrophe engine will likely be the source of its own demise."

Session 7 (I)
Symbiosis Today; or, the Denatured Individual
Chair: Derek Woods, Rice University

Since the beginning of modern symbiosis discourse in 1868, symbiosis has been a figure of monstrous or abnormal exclusions from the biological norm, whether in the guise of unaccountable hybrid mutualisms or pathologized parasites. Symbiosis research has been carried out on the margins of biology, proper to no sub-field and frequently dismissed as pseudoscientific or anthropomorphic. In A Thousand Plateaus, Deleuze and Guattari use symbiosis as a figure of unnatural becomings that scramble the arboreal structures of genealogy. For Lynn Margulis and others, symbiosis literally demands the revision of the cladistic trees used to diagram evolutionary history: they don't just branch, they also fuse. Over the years, many critics of symbiosis theory and of Margulis have been skeptical whether mutualism can be considered "natural" at all. At present, when symbiosis research is expanding and gaining legitimacy, there are pressing questions about how far concepts of symbiosis can be generalized, and about their implications for biological individuality and evolutionary theory. The three papers in this panel address three questions: how to characterize organisms that are already complexes of organisms; how concepts of symbiosis can explain relations between organic and

inorganic bodies; and whether philosophies of technology can clarify the theoretical scope of symbiosis.

Bruce Clarke, Texas Tech University
Symbiosis after Margulis: Animal and Microbial Holobiosis

Margaret McFall-Ngai et al write in a recent PNAS article, "Lynn Margulis . . . predicted that we would come to recognize the impact of the microbial world on the form and function of the entire biosphere, from its molecular structure to its ecosystems. The weight of evidence supporting this view has finally reached a tipping point." The aim of my talk is to review some of the newer evidence raising Margulis's view to its newly paradigmatic status. In the second edition (1993) of her major scientific text, Symbiosis in Cell Evolution, Margulis provides terms that have gained a new currency: "The integrated symbionts (holobionts) become new organisms with a greater level of complexity." Recently, the literature of symbiosis has paid particular attention to the formation and function of holobionts in the relations between microbes and animals. Traditional accounts of evolution have tended to treat the microbial relations of animals as either peripheral or pathological. Being animals ourselves, we identify with their seeming discreteness as separate, individuated organisms. However, animals first evolved in the pre-Cambrian seas, prior to fungi or plants, from a largely microbial world, and so emerged within a biospheric matrix of microbes, a microcosm within which they have always been ecologically integrated and from which they can never viably depart. As Gilbert, Sapp and Tauber remark in the December 2012 issue of The Quarterly Review of Biology, "associates in a symbiotic relationship are under the social control of the whole, the holobiont. . . . If the immune system serves as the critical gendarmerie keeping the animal and microbial cells together, then to obey the immune system is to become a citizen of the holobiont." Symbiosis after Margulis is rethinking microbial-animal communities ecologically as holobiotic polities.

Ada Smailbegovic.
Symbiotic Architecture: Baroque Encounters between Parrots, Ornaments and Electrical Transformers

In When Species Meet, Donna Haraway writes about "the cat's cradle games" through which "living critters form consortia in a baroque medley of inter- and intra-actions" (4, 31). One of the theoretical signposts for Haraway's articulation of such constitutive encounters is Lynn Margulis' work on symbiosis. In Early Life, Lynn Margulis and Michael Dolan define symbiosis as "the intimate living together of two or more organisms" (6). In this paper I will examine how the concept of symbiosis can be used to articulate a form of "living together" that extends beyond the membranous boundaries of the cell or the organism to include encounters between organic and inorganic matter. Specifically, the paper is concerned with staging an encounter between animal and human architecture by examining how monk parakeets that inhabit Greenwood Cemetery in Brooklyn use human architectural and technological structures for their own architectural endeavors of collective nest building. These architectural encounters are indeed neo-baroque as the parakeets are most attracted to highly ornamented sites on the cemetery entrance gate or the intricate interleavings and elaborations of electrical transformers. Symbiosis becomes a way to theorize how these different encounters between entities can be

understood as relations between different organic and inorganic bodies. The paper envisions that a body may here be understood in Spinozan terms - so that the ornaments on the gate, the collective nest structures, multiple parakeet individuals tied together through social bonds become bodies that affect and are affected by the bodies that surround them.

Derek Woods, Rice University
Thoretical Lichenology—Prosthesis and Parasite
Simon Schwedener's 1868 "dual hypothesis" concerning the lichen form of life marks the inception of symbiosis discourse in modern biology. Since then, many have attempted to answer the ontological question, what is a lichen? From Schwedener to lichenologist Trevor Goward's essay "Lichens Have No Names," the fungal, algal, and cyanobacterial symbionts have been variously cooked into master-slave relationships, relations of cultivation, organisms, monsters, hybrids, ecosystems, societies, holobionts, and emergent properties. Studying answers to the question what is a lichen? yields a cross section through the history of symbiosis, a cross section which speaks to the following theoretical problem: how to characterize the many irreducible, system-like entities that we no longer want to describe in terms of the relation of part and whole. An imaginary dictionary differentiating terms like "whole," "web," "network," "assemblage," "system," "mesh," "transindividual," "dispositif," and "object," inter alia, would be helpful in this moment when systems theories, new materialisms, and OOO work to move beyond no longer tenable versions of scientific reductionism and mechanistic materialism. "Lichen" is one of these terms, and one way to characterize the lichen/holobiont requires the synthesis of Humberto Maturana and Francisco Varela's concepts of "autopoietic machine" and "structural coupling" with the notion of "epiphylogenesis" put forth in Bernard Stiegler's reading of Derridean technicity. Symbiogenesis is a supplemental biology, and reading answers to the lichen question can be a workbook for this biology, providing a link to concepts of prosthesis that offer a means of writing symbiosis without organicism or vitalism.

Session 7 (J)
Plague: Viruses
Chair: Aleksandra Hernandez, University of Notre Dame

Adam Haley, Pennsylvania State University
Viral Modernity: Accumulation, Transmission, and the Shape of the World
What happens when contemporary culture and what Jeff Nealon has called "just-in-time capitalism" theorize both themselves and their apocalyptic limits as viral in nature? What rhetorical work does the metaphoric of virality do to naturalize an ostensibly "post-nature" regime? What theoretical work can the virus - indeterminately living and non, analog and digital, natural and manmade, corporeal and virtual - do to articulate and clarify the constitutive paradoxes of postmodernity, neoliberalism, and global finance capitalism? This paper aims to take seriously the notion that the most pressingly descriptive world-picture of the present might be the archetypal outbreak disaster film shot of viral vectors spreading across a map of the globe.

The mapped image of viral spread (disease or meme) across abstracted global space manifests an anxiety not only about contagion as such but about the shape of the world, the patterns of its stitching as revealed by the circulation of a viral agent. I argue that such images articulate modernity as itself structurally viral, the virus functioning as a sort of national- or global-scale contrast dye, injected to make more clearly visible the structures through which it moves. What is obscured and what revealed by the virus as such a mapping agent? Moreover, if we take the virus seriously as a heuristic for parsing the interlocking spaces and accumulative flows of life under global finance capitalism, what are the consequences of its complex positioning within, outside, before, and after nature?

Catherine Belling, Northwestern University
Back to Nature: Going Bacterial in a Post-Antibiotic Human Culture Medium
 "Viral" marks the infectious dissemination of both pathogens and memes in the networks of human culture. Encapsulated DNA, living only when activated by the hardware of host cells, the virus signifies futurism, both in cybernetic technology and in the cultural transmissions that constitute pandemics. The viral is arguably already postnatural. Compare bacteria: living cells, they lack viruses' informational purity. Antibiotics have enabled us to see bacteria as primitive and low-tech, as subjugated enemy or symbiotic commensal we nurture with probiotics and fecal transplants. "Bacterial" reeks of everyday dirt, of "the natural" in its messy prehuman guise. But for decades antibiotics have been the catalyst in a global experiment, human bodies constituting a collective petri dish for culturing resistant strains. Market forces have concurrently made the development of new antibacterials a fiscal dead end for biotech. The result is a challenge to the progressive historical narrative of conquest over nature and to the ubiquitous war metaphor for human-microbe relations. Bacterial resistance has, by a sort of evolutionary insurgency, challenged the then-US surgeon general's1960 claim that "the war against infectious diseases has been won." A less martial metaphor characterizes the UK chief medical officer's 2013 announcement: "Antibiotic resistant superbugs could take us back to tbe 19th Century." Tracing the rhetoric and narration of bacterial resistance in contemporary news media and popular fiction, this paper argues that apprehending a post-antibiotic biosphere requires the construction of new historical trajectories for the nature-culture interface we call biomedicine.

Suzanne Black.
But whose art is it? Mimesis, multimedia, and consumers of phage art
Abstract text: In this talk, I will show some examples of "phage art," comment on its formal properties, and explore what its existence might tell us about the social roles of scientifically-inspired art. Phage, or bacteriophage, are viruses that prey on bacteria, and as model organisms in molecular biology, they have been extensively imaged by virologists. "Phage art," however, refers not to scientific figures or informational images of phage, but to more playful or fanciful artistic reproductions of the virus. Such images have been officially encouraged by the American Society for Microbiology (ASM)'s phage division, but they appear to have few viewers outside the phage community. It is true that phage art is generally mimetic, representing the spaceship-like shape of coliphage, but its creators are both artists and biologists, and the art exists in a striking range of artistic media. There are viruses sculpted of wood and wire and of medical supplies, paintings, mosaics and stained glass images of viruses, and models of the virus using decorative bead work. A number of the art works, like phage earrings and phage cakes, seem

designed for human consumption—aptly so, perhaps, given that the coliphage's natural habitat includes the human colon. Drawing on the work of James Elkins ("The Object Looks Back") and Kress & van Leeuwen, as well as recent scholarship in the visual rhetoric of science, I argue that phage art is fundamentally about creating community, both among phage researchers and between humans and viruses.

Molly Sturdevant, Saint Xavier University
"*It's all nonsense'*: Immunodeficient Responses to Ambient Grief in Chekhov and Spinoza
When Dr. Astrov suggests a certain green-living solution to his interlocutors in Act I of 'Uncle Vanya' (1897), he needs no one but himself to prompt the sudden retraction of his own hope as "nonsense." An eco-critical reading of his withdrawal can only abide by the emergent sense of loss that saturates every environmentalist when thrust against the wall of climate apocalypse. All our hopes *are* nonsense. But whereas Astrov has no real recourse in that moment, other than to vodka and his affection for birch trees, I argue that there is a tonic available which redeems the eco-thinker from the sedentary effects of grief, without redeeming her from grief itself. This motivating grief manifests in Spinoza's 'Ethics' (1677), as the possibility of the collective countenancing of things "so ugly they produce nausea." (Ethics, Part I, appendix). Indeed, a careful study of Spinoza's notions of the passionate affects in Part IV of the Ethics, 'Of Human Bondage,' suggests first of all that it is no sense of oneness that recommends Spinoza's metaphysics to us in the age of climate change. What Spinoza demands is an acquiescence into our contingent world wherein we admit and even consume the asymmetrical meeting of ourselves with our surroundings. The result of this union is the claim that there is no apocalypse. Degradation can go on and on, just like life. Spinoza doesn't suggest that we go affectively looking for Nature qua Nature; that's nonsense. Rather, we must make sustenance a habit.

Session 7 (K)
Collage III: Sense and Sensibility
Chair: Dennis Summers, and Michael Filas, Westfield State University

Collage and related forms of combination in all media have been among the most important strategies of creativity for the past 100 years. And it's not going away. By extension what is the SLSA conference if not one great intellectual collage. Isn't it the juxtaposition of speakers and ideas that gives this event its special meaning? Today we have a stream of 3 panels that will address collage from both individual creative perspectives and more general philosophical, historical, and methodological approaches. The third panel includes a writer, an art historian, and an artist posing as a philosopher. They share an approach to understanding collage that leads outward from the product itself to an attention to larger sociological processes.

Janine DeBaise, SUNY-Environmental Science and Forestry
From blog to book: little pieces make the whole
I put together a memoir by working with hundreds of short blog posts that I'd written daily over several years, putting these short pieces together into chapters. I'll talk about the ways that writing the rough draft of the book on a blog, as series of posts, an interface where readers could

respond to what I was writing, changed the work I was writing. To put the book together, I had originally planned to write transitional sentences and paragraphs to combine the pieces in a more traditional way, but then realized that I liked the fragments better, with the white space between them allowing the readers to be more active as participants and invite them to make the connections between the pieces. What seems at first glance to be disparate pieces are actually a carefully arranged mosaic with eight themes, and several of the themes give the manuscript a narrative arc. I'll read some excerpts, but I'll also talk about the practical parts of the project: the word-processing software I used to color code thematic threads and create a visual representation of the pieces I was working with as I arranged and assembled them. Writing is often seen as a lonely process, but I'll talk about the role friends, family, and colleagues played as I put the book together. I think that having a supportive and responsive community is important for artists, scientists, writers, and scholars, and the internet has made it much easier to participate in that community.

Barbara L. Miller, Western Washington University
sliced, diced and retrofitted
This paper touches upon a spectrum of artists who slice, dice and retrofit body parts. This type of figural "dis-order" started within early modernists' works, from Cubist abstractions, to Dadaist photomontages, to Surrealist installations. It reappears more viscerally in a host of postmodernist artists' works, from Damien Hirst's formaldehyde-immersed carcasses, to Kiki Smith's filleted figures, to Von Hagen's plastinated body parts. Meanwhile others add parts, from Eduardo Kac's chip implants to Takashi Murakami's transformers. In "sliced, diced and retrofitted," I look at displays that either intrude and open up or transform and recompose biological forms — installations that go beyond any simple designation of being "cut with a kitchen knife." I argue that instead of a "growing irrelevance of the body in an ever more virtual world," as Mark Dery puts it, and/or a victim-identification slasher film where "'good' means scary, specifically in a bodily way," as Carol Clover contends, many contemporary artists make palpably present what Vivian Sobchack refers to as our lack of ability to explain discomforting visceral experiences as anything more than "'mere' physiological reflexes." My point is that these artists' works are something other than "metaphorical description." In giving rise to excitation and stimulation, they attempt to make sense out of sensation. Simultaneously, these works are about excess and rapture; they open up a potential to invoke extra-discursive and extra-textual sensations. This paper looks at these very graphic works in the context of what Brain Massumi refers to as "the incompleteness" of language.

Dennis Summers, CCO, Strategic Technologies for Art, Globe and Environment
Collage: Not Sticky, but Slippery
Collage (and by extension all the other "ages" -montage, assemblage, etc., and the non-"ages" like combine, cutups, mashup, etc.) is considered by some to be the most significant development in the arts in the 20th Century. With new digital technologies collage will certainly have an even larger presence in the arts of the 21st. The collage aesthetic has permeated every single artform including but not limited to poetry, drama, literature, music, architecture, and dance. Remarkably, aside from the numerous texts on the meaning of specific collaged work, there seems to be little written on just what is a collage, other than at the most obvious definitions. Although the word itself is "sticky" defining it turns out to be quite slippery. At first

glance what appears to be collage may not be, and vice-versa. Digital technologies have further confused identification. For all of my career, in just about all of my work I have approached art-making with a "collage aesthetic." I have given it much thought at the formal level, but only recently have begun to explore it more philosophically. I intend on trying to define just what makes a collage a collage, and will address why this attempt is doomed to failure. Furthermore, I will address the sociological underpinning of collage, and it's larger implications in how humanity relates to the "natural" and "postnatural" world.

Session 8 - Saturday 11am-12:30pm

Session 8(A)
Scientific Intervention and the Postnatural
Chair: Emily Waples

This panel seeks to interrogate the relationship between science, technology, and the natural world that is embedded in the term "postnatural." Defining the "postnatural" as scientific intervention in the environment, our panel stitches together seemingly discordant texts, historical periods, and theoretical interventions, which together seek to complicate what we think of when we think of the "postnatural." The ways in which each of our papers employs the postnatural in its analysis allow us to expand critical understanding of the constant negotiation and re-constitution of the relationships between science and nature that are key to reading the literary past and anticipating the aesthetic present and future. Though we do not wish to construct a historical narrative between our papers, our panel is historical in nature so as to complicate presentist notions of the postnatural that do not take into account the ways in which humanity has manipulated their natural surroundings and sought to be "postnatural" in the nineteenth and early twentieth centuries. Our panel performs this cross-historical approach to the postnatural through putting readings of the postnatural in romanticist and modernist literature -- as well as scientific discourses contemporary to these periods -- in conversation with an analysis of the postnatural and posthuman in late twentieth-century art and literature. This panel's approach to the postnatural enables us to make interventions in current critical discourses surrounding the dichotomous relationship between the natural and the artificial, the modern and the anti-modern, the self and the other, and the human and non-human.

Kristin Fraser, University of Michigan
Pictures of the Pueblo: Austin and Lawrence at Taos
Kristin Fraser's "Pictures of the Pueblo: Austin and Lawrence at Taos" will explore two works by writers living in the vicinity of Taos, New Mexico, where a community of artists formed in the early twentieth century: D. H. Lawrence's Mornings in Mexico (1927) and Taos Pueblo (1930), a collaboration between Mary Austin and Ansel Adams. Regionalism and nature writing are often thought of as anti-modernist genres, in that they are associated with a romanticism or primitivism that rejects modern scientific and technological advances. Lawrence has such a

reputation for hostility to science, and yet he is known as a modernist. Austin, on the other hand, was an amateur naturalist, her writing deeply informed by scientific knowledge of ecology and natural history, but her work is often understood as anti-modern. Yet both of these works reflect a preoccupation with the position of knowers within the systems they observe and describe. Their concerns mirror contemporary debates about scientific representations that came both from new insights in biology and physics, where human participation and mediation came to be understood as an integral part of natural knowledge rather than a contamination of it. In their aesthetic concerns, this paper argues that Lawrence and Austin (with Adams) strive to escape both simple primitivism and naive scientific realism, instead actively negotiating difference from within systems. In challenging subject-object, culture-nature, and seeing-doing dichotomies in ways informed by contemporary scientific debates, these works about Taos seek not an antithesis to modernism but an alternative form of it.

Emily Waples, University of Michigan
"Atmospherical Media": Cholera and the Etiology of the American Romance
When cholera crossed the Atlantic in the summer of 1832, environmentalist etiology located the disease in the "atmosphere." By suggesting that the disease originated not in suspect others, but in individuals' own homes and bodies, print discourse accordingly posited self-care as a civic responsibility. Physicians intervened in the print public sphere with a pedagogy for purifying "atmosphere." As Emily Waples suggests in her paper "'Atmospherical Media': Cholera and the Etiology of the American Romance," the project of the antebellum American romance is similarly miasmic. As theorized and practiced by writers like Poe, Hawthorne, and Melville in the 1830s-50s, the romance is similarly preoccupied with the issue of "atmosphere" as it negotiates or frustrates the relationship between the manifest and the latent, the visible and invisible. The romancer, Hawthorne argued, out to be allowed the imaginative "latitude" to "manage his atmospherical medium." Reading journalistic and autobiographical accounts of the cholera epidemic alongside Poe and Hawthorne, this paper explores the way in which antebellum America posited atmosphere as a "medium" to be managed. Transcending the humoral anxiety about the porousness and penetrability of bodies by nature or climate, then, print discourse on cholera was "postnatural" in the sense that it posited atmosphere as not only as something one consumed, but as something one produced.

Kate Schnur, University of Michigan
Surgical Aesthetics: Facial Reconstruction in the Postnatural World
In her paper "Surgical Aesthetics: Facial Reconstruction in the Postnatural World," Kate Schnur considers the ways in which postmodern literature and art engage with the practice of plastic surgery as a form of bodily enhancement. Putting Chuck Palahniuk's novel Invisible Monsters in conversation with the performance artist Orlan's The Reincarnation of Saint Orlan, Kate analyzes how Palahniuk and Orlan use the technologies of plastic surgery as a means of interrogating the place of the body in the postnatural world. Turning to theorists of posthumanism and feminist posthumanism, such as Donna Haraway and N. Katherine Hayles, Kate argues for the distinction between the ways in which the female body is theorized in posthumanism and how we read the body in postnatural contexts. Ultimately, this paper argues that an "intertextual" analysis of Invisible Monsters and The Reincarnation of Saint Orlan will illustrate a postmodern aesthetic of the body that is postnatural, and yet not posthuman. In her

comparative analysis of her two source "texts," Kate highlights the ways in which Palahniuk and Orlan understand and visualize the networks between medical technologies and the flesh, blood, and pain of the human body that form in the act of surgical "enhancement." Rather than the true integration of the body and the machine that is so integral to the posthumanist imagination, both Palahniuk and Orlan understand plastic surgery to be a forum in which the body is almost simultaneously fragmented and reconstituted as a new -- yet still fleshy, non-bionic -- whole.

Session 8 (B)
Finance Capital, Temporality, and the Postnatural I
Chair: Katherine Hayles

This panel consists of three talks exploring the relation between temporality, posthuman trading, and finance capital. The "postnatural," concerned with issues of sustainability in the contemporary world, cannot be thought separately from finance capital, now estimated to comprise about 40% of all economic activity in the US. As a speculative endeavor, finance capital makes bets on the future and in the process actually helps to produce the future. Thus the construction of temporality is as endemic to finance capital as it is to sustainability. With algorithmic trading now comprising about 75% of all trades, the resulting nonhuman ecology also transforms temporality from the macro scale of human perception to the microtemporalities of machine processing. The implications of these constructions of temporality, and their implications for social and cultural productions, are interrogated as summarized in the following abstracts.

Morgan Adamson, Macalester College
Markets Without Subjects: NASDAQ and the Making of Contemporary Finance
In 1971, the US financial sector witnessed concomitant revolutions in the functioning of money and capital markets: the end of the dollar-gold standard and the birth of the NASDAQ market. These two events signal the move towards the so-called "dematerialization" money; more precisely, these events mark the beginning of the technological revolutions in the electronic transfer of financial information and money that have, in part, enabled the vast expansion of the financial sector and circulation of ever-more complicated forms of financial commodities in the past four decades. As Caitlin Zaloom has chronicled, this transformation forced financial traders "out of the pits" and positioned them in front of computer screens, shifting the culture of financial institutions and the subjects that populate them. My proposed paper focuses on the inception of the NASDAQ market—the world's first electronic financial platform. My interest is to bring together recent theoretical discussions around the proliferation of credit and debt in neoliberalism (and the forms of subjugation they imply) with recent conversations in media studies regarding the interface, from Alexander Galloway and others, arguing that without an adequate conception of media and mediation of monetary processes and the technologies that undergird them, we cannot fully understand the operation of power relations and the production of value with regards to financial economies economy. The introduction of the NASDAQ is a pivotal moment of rupture in culture of financial markets, prefiguring the era of e-trading and the proliferation of financial products and transactions dependent electronic financial networks.

Vidar Thorsteinsson, Ohio State University
Vital preservation: Transferring value across natural and social time
In her study "The Body Economic," Catherine Gallagher shows how classical political economists viewed the creation of value as "investing vital energy" in commodity-objects and then "œmaking it transferableâ€ to other commodities. The paper considers to what extent Marx's mature economic works can be said to critically espouse such an organicist vitalism, primarily with reference to his variant of the labour theory of value. Two related problems arising from such a take on Marx's value-theory will be considered: one, how it is that the human body appears capable of generating not only value but surplus value, understood as a quantifiable substance of value over and beyond the value re-absorbed by workers through their reproduction. Two, how it is that commodities appear not only to receive and "embody" added value through the labour-process, but also preserve it through exchange and circulation. Drawing on Sohn-Rethel and Heidegger, these problems will be discussed in light of a proposed distinction between a "natural time" of organic decay and depletion, and a "social time" of abstraction and uniformity. Finally, it will be demonstrated how the disjuncture between these two times requires, and facilitates, the use of credit instruments specific to capitalism.

Katherine Hayles, Duke University
Writing Derivatives and Derivative Writings: Opening Temporality to Contingency
How does the present relate to the future, and the future to the present? This may seem like two ways to ask the same question, but in finance capital, their subtle differences widen to a rupture between two very different worldviews. As Nissam Taleb has shown in "The Black Swan," sooner or later highly improbable events are bound to happen. This fact shoots a very large hole in the primary methods used to calculate valuations of derivatives through stochastic and probabilistic functions. What are alternative methods of calculation, and what are the philosophical and cultural implications? In "The Blank Swan", Elie Ayache shows that the famous Black-Scholes-Merton function (BMS), pervasively used in finance capital to hedge the risk out of derivative pricing, can be run backwards, so that one is no longer evaluating the optimal price for a derivative but assuming a price and then calculating the implied volatility. Effectively, this means that one is using the future to calculate the present, rather than using the present to predict the future. The consequence, Ayache argues, is to remove probability as a basis for market decisions and replace it with price—price understood simply as what happens next, and the market as a chain of contingent claims. Recalling Quentin Meillassoux's argument in "After Finitude" for the absolute necessity of contingency, Ayache sees the market as a space of writing (derivatives), making the the future into the primary determinant of the present.

Session 8 (C)
Postnatural Aesthetics
Chair: Margaret McMillan, University of Notre Dame

Matthew Lerberg, University of Texas at Arlington
The Presence and Absence of Place: A(e)s(th)et(ics) in Animal Art

Artist Allison Hunter's work titled "New Animals" contains beautifully haunting images that focus primarily on the animals subjects. All other markers are carefully erased, replaced with color. The images signify an important ethical discussion with regards to human and nonhuman animal relationships—place, or more specifically the lack of place for nonhuman animals. The images, as well as her artistic process, parallels scholars concerns about human technology and habitat loss, as well as more theoretical concerns about the place of animals in human thought. Artist Lynne Hull's art installations titled "Raptor Roost" also highlight the importance of place (and are literally roosts). Unlike Hunter, Hull's work becomes a part of, not apart from, the places that her animal subjects inhabit. Interestingly, both place in presence (Hull) and absence (Hunter) in these works demonstrate the importance of the convergence of aesthetics and ethics in the arts as for both the primary ethical concern is the importance of place for animals. Place becomes intertwined with the knotted material and semiotic arguments forwarded by Haraway and the biosemiotic and phenomenological arguments forwarded by Uexküll. A(e)s(th)et(ics) addresses these very convergences: phenomenological, material, semiotic throughout histories. A(e)s(th)et(ics), as a theoretical paradigm, begins with perception and art theory; however, it borrows from theories in the sciences and humanities in order to better address the relationships between humans and nonhumans as represented and encountered in the arts. What both artists highlight through a(e)s(th)et(ics) is the need to address animals place.

Amanda Boetzkes, University of Guelph
Aesthetics and the Postnatural Visual System
What terms might define a concept of "ecological vision", and how might this concept mobilize a broader politics of ecological being? This paper charts the convergence of visual studies and ecology through the study of three theoretical trajectories: first, James J. Gibson's notion of ecological perception; second, through developments in the field of neuroaesthetics; and third, through an analysis of a number of artworks that explicitly address the aesthetic dimensions of ecological crisis. In this way I will argue that a postnatural consciousness is currently being articulated through a neurological understanding of the transactions between human and nonhuman life. Further, I will argue that vision, and even the eye itself, is a privileged site at which these transactions are forged and radicalized. The cognitive psychologist James J. Gibson spearheaded the notion of ecological perception in The Ecological Approach to Visual Perception (1979), a book that has had a considerable impact on fields as diverse as design, phenomenology, art history, and eco-criticism. Not only did Gibson rethink human perception through the study of animal behavior, more profoundly, he defined visual perception as a crosscut between subjective experience and the objective world. This approach was especially influential in the realm of neuroaesthetics, as it has been developed through figures such as Ernst Gombrich, Michael Baxandall, and John Onians. If we are to think of vision as netted to a larger field of neurologically-charged activity, the boundaries that subtend the traditional concept of "nature" and its related ontologies of the "human", give way to new cartographies of a postnatural world. I will suggest that a postnatural vision (both a view and a point of view) is cultivated through the work of Dutch artist, Levi van Veluw, and German artist, Mariele Neudecker.

Susanne Pratt, The University of New South Wales
Tactical Institutions: Performing the setting of engagement

This paper offers "tactical institutions" as a tool to describe how artists are using different assemblages of humans and nonhumans to re-imagine unsustainable practices. This is explored through examples of new media art projects that highlight alternative institutional arrangements to both critique and re-imagine forms of public participation in environmental health issues: How are new media artists re-imagining institutions and everyday practices to critique existing ecological problems and concerns? I turn to the settings—assemblages of humans and nonhumans—that artists employ to understand the role of settings in performing public participation. To undertake this investigation I employ Noortje Marres's concept "material participation"—a modality of engagement that investigates the role of things in social and political life. For Marres exploring material participation enables a "re-distribution" of the problems of participation across human and non-human actors; actors that include, the technology, the human participant and the setting. Central to her argument, and to what I am proposing in this paper, is the importance of investigating how different devices perform the settings of engagement to understand the problems, and specificities, of public participation. The argument of this paper is developed by drawing on the concepts "tactical media" and "institutional critique". The intention of this paper is to explore how artists are creating, performing, embedding, evaluating and entangling alternative representations of settings—what tactics are they using? This paper ends with a discussion of the possible ways in which "tactical institutions" can be used to re-imagine unsustainable practices.

Kathryn Eddy, Independent Artist, Montclair, NJ
The Problematic Nature of Flatness
In his book, *Surface Encounters: Thinking with Animals and Art*, Ron Broglio writes about the incorrect assumption that humans are separated from animals by interiority and emotional depth and that animals do not have depth and live their lives on the surface. Throughout history, many injustices towards animals have been rationalized by this belief. On the other hand, artists have always portrayed animals by dealing literally with their surface (flatness), i.e. painting them on canvas, photographing their exteriority, sculpting their shapes and form in an effort to better understand the animal human relationship.
The absence of farmed animals in our everyday experience has created the environment and opportunity for capitalism and animals to collide. The Problematic Nature of Flatness is an immersive time-based sound installation that utilizes the recorded voices of farmed animals and encourages the viewer/listener to listen to the animals as opposed to looking at them. The sound piece is an 18 track, 4 channel compilation of animal voices recorded at farm sanctuaries. It brings animals back into the room where we can listen to them in their own language, in stark contrast to the painting, sculpture, or photograph which rely on what the artist and subsequent viewer sees. By making no attempt at translation, the animals can speak on their own terms, without our interference or human-ness getting in the way. By bringing the sounds of our food animals into the room, I use the inherent power of sound to bring the voices of the absent animal back into our minds and hearts. All we have to do is listen.

Session 8 (D)
Failure & Blame in the Cultures of Code
Chair: Matthew Wilkens, University of Notre Dame

Ellen Moll, University of Maryland
Online Cultures and the Ethic of Pseudonymity
Pseudonymity, and its distinct counterpart, anonymity, are hotly contested topics in a variety of communities who have stakes in the nature of online conversations. This paper considers online communities that construct pseudonymity as a technology of resistance, and as a vital tool in ensuring that the Internet remains (or becomes) a democratizing force. In particular, I examine feminist websites and blogs that suggest the political and ethical stakes of protecting online pseudonymity practices. Many of these discussions are responses to debates over 'real name policies' and similar measures designed to fix online identities to legally imposed 'flesh' identities. Feminist defense of pseudonymity in many cases draws on one or more of the following concerns: that pseudonymity is most important for those in marginalized groups or those taking highly progressive political stances; that pseudonymity is a vital part of Internet culture; that online pseudonymity is part of a long and culturally significant history of pseudonymous practices in literature and elsewhere; and, that real name policies are part of a culture of surveillance that disproportionately distributes information and power. Moreover, an ethic of pseudonymity may serve to undermine the Eurocentric and masculinist view of transparency and subjectivity that is largely inherited from the Enlightenment. Drawing on works of feminist technoscience, particularly that of Donna Haraway and Karen Barad, this paper analyzes the subjectivities implied by different communities' ways of inscribing value (or danger) in pseudonymous Internet practices.

Jennifer Rhee, Virginia Commonwealth University
AI Winters: Failures, Funding, and Gender
Jack Halberstam's *The Queer Art of Failure* asks, "What kinds of reward can failure offer us?" This talk will examine narratives of failure in artificial intelligence research. Specifically, I will focus on the history of "AI winters," periods in which government (largely DARPA) funding for artificial intelligence research was significantly reduced. This reduction of funding was in large part a response to prior circulations of unrealistic – and therefore ultimately unmet – technological expectations. In this talk I will trace these wintry disconnections between technological capability, expectations, and funding in AI history, from the failure to develop sophisticated machine translation programs in the mid-1960s to the disappointing outcomes of expert systems in the early 1990s. Many AI discourses purport to be gender blind; in *Artificial Knowing: Gender and the Thinking Machine*, Alison Adam retells the history of AI as anything but. AI research, Adam asserts, is inescapably gendered. I will argue that AI failures and their unfulfilled technological promises make visible the specific gendered anthropomorphic imaginings at work in both research and government funding agencies. By examining the history of AI winters – their promises and disappointments, the unrealized machine translators and experts – I will explore the gendered anthropomorphic connections that bind AI research, expectations, and funding.

Session 8(E)
Beyond Biopolitics: Papers from the Society for Biopolitical Futures--Panel II: Forms of Life, Forms of Death
Chair: Jeff Nealon

On April 5 and 6, 2013 a group of scholars met at the Syracuse University Humanities Center for the inaugural meeting of The Society for Biopolitical Futures, supported by both the Center and by the Central New York Humanities Corridor project of the Mellon Foundation. In the words of the Center′s Founding Director, Gregg Lambert, the Society is loosely modeled ‘on the establishment and activities of the College of Sociology between 1937-1939. The College took as its `precise object of contemplative activity,′ according to the collective statement by its members `the name of Sacred Sociology, implying the study of all manifestations of social existence where the active presence of the sacred is clear. It intends to establish in this way the points of coincidence between the fundamental obsessive tendencies of individual psychology and the principle structures that govern social organization and are in command of its revolutions.′ Today, if there is any name that could serve to replace the sociological and anthropological notion of the `sacred,′ it is the current names of `bio-power′ and the `bio-political.′ This association has both interesting and problematic consequences, which will be the subject of the Society′s collective research." This stream of sessions presents work that has evolved out of the initial meeting of the Society for Biopolitical Futures and concludes with a roundtable discussion by Society presenters on the present state of biopolitical thought and its possible futures.

Kalpana Seshadri, Boston College
Keeping Death Alive: Signature, Event, and the Human-Animal Context
The implication of Heidegger's rendering of the human/animal distinction in terms of language is that to dwell in the logos is to have an intrinsic capacity to experience death as death. Invariably, animals that have nothing but voice as instinctive cries or calls are also denied the experience of dying. Animals merely perish, whereas, man who knows himself as mortal, is always a being for death. Thus the problematic of animal death, turns around the question of voice and its relation to language. The logos, as it has been elaborated within the philosophical tradition, is properly the power of thought that bears no relation to vocalization as animal voice. From a post-humanist perspective, the above formulation of the human/ animal distinction appears vulnerable for two reasons: first, death, especially human death, today suffers from a radical indeterminacy and life is increasingly understood in molecular ways. Thus it appears that death "as such" no longer carries a unitary meaning. More than ever, the moment of human death is a political decision, rather than a biological event. Second, neurobiologists have shown that humans and birds share the same gene FoxP2 that is implicated in language learning. Given that we no longer have a way to mark individual death as an event, and cannot in good faith consign the animal to mere voice, this essay explores the possibilities for marking singularity paradoxically in the facts of "species extinction" and "genocide" via the commonality of the signature.

Jeffrey Nealon, Pennsylvania State University

Living and Dying with Foucault and Derrida
I begin by examining Derrida's skeptical reactions to Foucaultian biopower (and its questions of life and death), and argue from there that one can see the questions of life and (especially) death as being primary and irreducible points of disagreement for organizing the lifelong debate between Foucault and Derrida. When for example Foucault critiques the quasi-mysticism of an originary "gap of deferred time" in 1969's Archaeology of Knowledge (adding "it is always the historico-transcendental theme [of the 19th century] that is reinvested" by différance), Foucault inaugurates his overarching critique of Derrida less in terms of deconstruction's "metaphysics" than its portrait of "life" as endless desire. In short, Foucault argues that deconstruction mistakes a 19th-century European (essentially Hegelian) account of life and death for a transhistorical description of life "itself." This essay looks at the historical question of life in Foucault and Derrida, differentiating Derrida's insistence that "life" is defined in relation to the question of "world" or "infinity" (Derrida characterizes the end of life as "each time unique, the end of the world") from Foucault's work in biopower and his claim, in The Order of Things, that "up to the end of the 18th century, in fact, life does not exist."

Allan Stoekl, Pennsylvania State University
Urban Ecology, Sustainability, and Aragon's *Paris Peasant*
In my talk I would like to discuss some of the consequences of certain questions found in theories of urban ecology, and the implications of these questions for notions of sustainability. My remarks on urban ecology will bear on the problem of "presence": what it means for a certain animal population to be "present" in a given urban ecology. I will consider this, in light of the (related) difficulties of determining the presence--and absence--of the human species in certain urban or post-urban ecologies (such as Chernobyl,present-day Detroit, rural Australia, etc.). I will then highlight the related question of a basic paradox of contemporary sustainability studies: while both "light green" and "dark green" theories stress the centrality of a human presence-- after all things are in principle being "sustained" to benefithumans--the human population is also necessarily treated as just one more animal population, subject to, in the end, the same constraints (including the very question of the contingency of its "presence") as all the others. I will consider further this double position of the human--both as privileged center and as just one more contingent species--through a reading of the "third space" of the city in Louis Aragon's *Paris Peasant*, and a consideration the implications of such a space both for urban ecology and sustainability theory.

Session 8 (F)
Technics, Infrastructures, and Subjectivity
Chair: Andrew Goffey

As it becomes increasingly evident that flows of money and people - rather than received paradigms of territorial sovereignty - are constitutive of nation-states, the role of infrastructure in the production of a stable environment within which a 'people' can hold sway is becoming more visible. Yet infrastructures in the technical details of their implementation rarely attract the conceptual inventiveness reserved for the study of culture. This panel explores ways of thinking

about and understanding infrastructure in a post-natural, post-cultural era and the legacies of the 'infrastructure complex' (Guattari) at work in modern theory and practice.

Thomas Lamarre, McGill University
All the Time in the World: Living between Apparatuses of Attention and Location
The recent construction (and celebration) of increasing massive broadcast towers in global cities serves as a reminder that communications networks do not only entail connectivity and horizontal differentiation but also modes of vertical integration consonant with the concentration of media ownership and new forms of control. In keeping with Deleuze and Guattari's challenge to consider 'desire in the infrastructure,' this paper looks at the experience of communications networks in Tokyo in terms of what happens between an attention apparatus operating more at the level of connectivity and a location apparatus associated with vertical infrastructures. The result is a forced assemblage of a jubilatory, quasi-cosmological sense of belonging with incessant and paralyzing demand, which tends to configure the economy of debt and risk as an experience of an all-or-nothing gamble between the apocalyptic arrival of the post-natural world and the daily "work on self."

Andrew Goffey, University of Nottingham
Infrastructural Aesthetics and Computational Experience
The code-spaces characteristic of the computational technologies of contemporary data exchange and processing form a critical aspect of the production of subjectivity under globalization. The algorithms and data structures of computing technologies are significant factors in the cultivation of particular kinds of low-level aesthetic, generating transient feelings and sensations - frustration, irritation, boredom, bafflement - that are easily rationalized away by the idealization of information. Drawing extensively on the work of Felix Guattari and the empiricist philosophy of Alfred North Whitehead, this paper offers an account of the genesis of the mundane aesthetics characteristic of the experience of computational infrastructures. It argues for the importance of developing a critical, theoretical interest in the "technical details" of computational processes as a starting point for considering the new environments within which subjectivity is formed, and makes the case for a more focused exploration of the grey media that make those environments up.

Orit Halperin, New School for Social Research
Test-Bed Urbanism: Cybernetics, Design, and the Infrastructures of Calculation
This paper traces the cybernetic influence on designers, urban planners, architects, and human scientists, to produce a preliminary speculative genealogy of contemporary "smart" and ubiquitous computing territories. It seeks to trace a genealogy of contemporary infrastructures of calculation. Taking a series of case studies ranging from the independent group—Archigram—to Nicholas Negroponte's experiments in Soft Architecture, to contemporary smart city developments such as Songdo in South Korea, the paper will trace the rise of this ideal of an algorithmically produced territory, and the subsequent transformations (real and imagined) in the forms of measurement and calculation administering populations. Ideals of feedback, data management, modularity, and control underpinned an emerging post-World War II attitude to the city as an experimental "test-bed", a self-reflexive, and self-monitoring organism which was infinitely enhanceable, improvable, and mobile. These real and imagined machine-cities were

viewed as experiments with no truths to uncover, self-produced reality worlds which by far overcame any discourse of simulation that still relied on the real. Counter, then, to contemporary arguments about simulation and risk, this paper will argue that the cybernetically imagined city possessed a myriad of forms, some of which envisioned radically different practices of managing and living in an uncertain world. This is particularly true throughout the 1960's and 1970's as worries about nuclear security faded in front of concerns about racial tension, transformations in political economy, and environmentalism. This paper inquires into these contested imaginaries and futures of urban life from cybernetics traditions.

Michael Fisch, University of Chicago
The Biomimetic Complex?
Since the late 1990s the concept of biomimicry has gained increasing purchase in a number of fields, especially infrastructure engineering and design. Dictating adherence to nature as a model, measure, and mentor for the creation of sustainable infrastructure and technological systems, biomimicry insists on the necessity of nothing less than a massive global cultural reboot for the remediation of centuries of cumulative environmental damage and a radical transformation in the human relation to nature. In one sense, much about biomimicry seems familiar. Its principle appeal to nature shares an affinity with early theories in evolution and experiments in artificial life. In addition, it can be linked to the Metabolist movement in urban design in Japan in the 1960s, which looked to organic paradigms in its search for alternatives to centralized modes of planning, economy, and social organization. Yet, in another sense, biomimicry seems to offer an alternative way of thinking and experiencing infrastructure that derives from its relation to the contemporary global milieu of information network and capital. Drawing on examples from biomimicry pedagogy, industry, and science in the United States and Japan, this paper explores this alternative dimension of biomimicry. It asks what kind of relation biomimicry imagines between the technological, the social, and the biological and how this imagining differs from the analogic relation between these domains specified within mainstream early postwar cybernetics. Consequently, is there something that can be called a biomimetic complex and, if so, how does it differ from 'infrastructural complex'?

Session 8(G)
Capturing Nature
Chair: Qingyuan Yang, University of Notre Dame

Daniel Vandersommers, Ohio State University
Animal Activism and the National Zoological Park: Rethinking Nineteenth-Century "Animal Rights"
Zoos marked an important feature on the changing landscapes of human-animal sensibilities. As the horizon of the nineteenth century faded into the threshold of the twentieth century, animals came into view for many reasons. The literatures of environmental history and animal studies have offered many reasons for this transition, but they have overlooked the centrality of zoos to the story. This paper will capture the voices of those concerned with zoo animal welfare as they reverberated around the National Zoological Park between 1887 and World War One. Animal

rights (originating in natural and utilitarian philosophy as well as radical vegetarianism) and zoos (forged as imperial symbols of the "nation") have very different, even opposed, creation stories. Yet in the decades surrounding 1900, zoos and animal rights become enmeshed in surprising and complex ways. By opening up the National Zoological Park, this chapter sought to show animal activism in action. Most everyday zoogoers did not consider themselves activists, enrolled in philanthropic and political organizations for the protection of animals. Most everyday zoogoers did not consciously develop a nuanced metaphysics concerning the "nature" of rights, the universality of emotion, the interspecies experiences of pain and pleasure, or the implications of evolutionary theory. Yet zoogoers necessarily thought about animals. This paper will argue that, at the turn of the century, zoos and animal rights transformed each other in significant ways.

Maggie Kainulainen, University of Illinois at Urbana-Champaign
Mapping Rhetorical Possibility in the Climate Change Pedagogy of Zoos
The Climate Literacy Zoo Education Network (CLiZEN) is a consortium of zoos whose goal is to develop a new approach to climate change education by encouraging zoo patrons' identification with charismatic animals as a means to change attitudes and behaviors related to climate change. This paper addresses the tension between climate change's disruptive rhetorical potential (Clark 2010; Morton 2010; Cohen 2010; DeLuca 1999) and the ways in which CLiZEN zoo exhibits employ containment rhetoric that minimizes this potential. I extend Morton's concepts of the mesh and the strange stranger as a framework for analyzing the visual and textual rhetoric of these zoo exhibits, and I argue that the identifications offered in the zoo's rhetoric work at cross purposes with other rhetorics at play within the discursive and pedagogical space. This paper focuses on the phenomenological experience of spectatorship, and I analyze the ways in which these zoo exhibits create an aestheticized experience of nature in general and of climate change in particular, with special attention to the act of looking. Due to an overwhelmingly positive attitude toward conservationism and "light green" environmentalism, CLiZEN fails to address the ways in which these human-nonhuman connections are framed by the zoo discourses of mastery, othering, and exploitation (Milstein 2009). However, I argue that the conflicted, paradoxical nature of zoo discourses creates latent structural possibilities for departures from and disruptions of these normative discourses within the rhetorical assemblages of the exhibits.

Alan Rauch, University of North Carolina at Charlotte
The pre-Post-Modern Dolphin: Meaning, Representation, and Existence in Animals
It has been 7 years since the extinction of the Baiji--the Yangtze River dolphin—which, once ranged far up the Yangtze, before human encroachment. The late Baiji came with a lovely narrative that explained its origin and the purpose of its existence. The Baiji is derived from the daughter of Bai, a ruthless father with an illicit desire for his daughter. He drowns her rather than see her marry a young steward and the slain daughter is transformed into a radiant white Baiji. In one version of the legend, the unrepentant and predatory father rapes a woman on the boat. She commits suicide and curses him as "a beast." The father is himself drowned and is transformed into the black finless porpoise a creature found in Yangtze and derided as "jiangzhu" or "the river pig." How do we reconcile "meaning" with this turn of events? The virtuous Baiji no longer exists in reality, but the notorious river pig has managed to survive. What does the Baiji "mean" from an ecological perspective. Endowed with so many supernatural qualities, the Baiji risks slipping into oblivion as an abstraction, rather than as an "eco-loss." This paper explores how we

reconcile our perceptions and interpretation of animals, with their material existence. How do we—or can we—address the existence and presence of fellow organisms, without slipping in spiritual and/or narratological fallacies? Do cultures mask their ignorance and uneasiness about the animal world, by enveloping them in either "primitive" myths or post-modern fantasies. Positing ourselves AS animals helps very little, as that approach requires an anthrocentric perspective. I propose no solution, but working with theorists like Derrida, Agamben, von Uexküll, and finally Haraway, I hope to highlight modes of think with and thinking within the animal in an [...]

Jon Crylen, University of Iowa
Expanding Oceans, Expanded Screens: Deep-Sea Exploration and the IMAX Experience
This paper explores the question of *scale* as regards the deep-sea, the technologies that explore it, and immersive, large-format cinematic experience (IMAX). Though much of the ocean remains unexplored, submersible technologies have in the past few decades greatly expanded the scale of the known ocean for researchers. Similarly, IMAX movies of the deep ocean--such as *Volcanoes of the Deep* (2003) and *Aliens of the Deep* (2005), this paper's two key examples--have put these new discoveries on display for a curious public on a visual scale that mirrors the scope of "inner space." First, this paper examines scale on an aesthetic register, drawing on classic/contemporary ideas of the sublime. It considers the relationship between the technological sublime (Nye) and the nature-oriented Romantic sublime, arguing that large-format images of the abyss inextricably fuse nature and technology--so that the natural and technological sublimes become mutually constituting. In these films, spectacular nature always testifies to the advanced technologies (cinematic, oceanographic) that reveal it. Secondly, my paper addresses scale on a rationalist register, drawing on Bruno Latour's arguments about scientific inscriptions. For Latour, science aims to produce combinable and superimposable figures and diagrams that render a great many things "presentable all at once." I argue that IMAX deep-sea documentaries function as Latourian inscriptions in motion, bringing together a diverse range of phenomena--macroscopic and microscopic, oceanic and cosmic, human and nonhuman, etc.--in one enormous frame, asking viewers to engage rationally with what also overwhelms them--to redefine disparate and opposed phenomena in relation to one another.

Session 8 (H)
Misrecognized In/Ex/ternal Boundaries: The Autoimmune Response in Art, Literature, and Dance
Chair: Tiffany Johnson Bidler

An autoimmune disorder is the product of an immunobiological response whereby an organism misrecognizes its own healthy body tissue as "other," as antigens, and subsequently launches an immune response against itself. The autoimmune disorder answers the question "Where is the boundary between the human and nonhuman?" through an unknowingly self-destructive misrecognition. Though biologically dysfunctional, autoimmunity makes visible the philosophical binaries and ontological assumptions that are basic to our understanding of self and other, sameness and difference. Although such disorders are characterized by immunobiological

failures and mistakes, this panel seeks to harness the deconstructive potential of thinking through autoimmunity in relation to art, literature, and dance. In what ways does the logic of the autoimmune inhabit works of art, literature, and dance? What can we learn through the study of such works about the body's sense of selfsameness and its configuration in the world? Does autoimmunity work as a productive lens through which works of art and literature can be analyzed? Can the autoimmune generate new aesthetic and philosophical models and help us to rethink old ones?

Jane Blocker, University of Minnesota
"Becoming Other: Eduardo Kac's Natural History of the Enigma and Immuno-recognition"
This paper sees and attempts to demonstrate a connection between immunobiology and art, both of which operate according to the differential logic of, to borrow Michael Taussig's phrase, mimesis and alterity, sameness and otherness. Immunobiology may be described as a set of processes involving the recognition of the self and a rejection of or immune-response to that which is other. Art similarly entails a set of processes for mimesis, but approaches it from the opposite direction, recognizing, copying and making sameness out of that which is other. In the case of autoimmunology, the body's process of recognition is thrown into disarray and there is a fundamental misrecognition. Of course, just as there are biological malfunctions in the immune system, so too the dichotomy self/other generates many philosophical complexities and contradictions as well. To examine those sites of philosophical malfunction, I study a complex bio-artwork called Natural History of the Enigma that Eduardo Kac created over a period of years and first exhibited in 2009. He worked with plant geneticists to produce a new species of petunia that contains a sequence of his own DNA (a sequence coding for immunoglobulin), which is expressed in the plant's veins. The paper deploys Taussig's work as a high powered lens through which to examine how Kac's piece functions immunologically and to see the complexities of otherness that are at work in it, especially in relation to globalization, bioprospecting, and race. It argues that the artwork functions productively to undermine the strict divisions between categories thereby creating an aesthetics of misrecognition.

Megan Friddle, Emory University
Narrative/Dysfunction: Decoding Autoimmunity and the Female Body
Autoimmune diseases are often described as the misrecognition of the body by itself, conditions where the immune system turns against healthy cells, mistaking them for invaders. These conditions, which include diseases of the connective tissue like rheumatoid arthritis, lupus, and scleroderma, as well as others like multiple sclerosis and Hashimoto's thyroiditis, disproportionately affect women, in particular, women of childbearing age. While for many years the only treatments for these conditions were toxic medications that dampened the inflammatory response by suppressing the entire immune system, recent advances in biotechnology have led to often highly effective treatments for autoimmune conditions that target small dis-regulations in the immune system. Yet narratives of autoimmunity continue to reflect the legacy of the feminine psychosomatic body, offering stories that mine the metaphorical richness of self-as-enemy. In this presentation I examine several narratives that focus on lupus and rheumatoid arthritis, including Mary Felstiner's memoir Out of Joint (2007) and the young adult novels Did You Hear About Amber? (Cherie Bennett, 1993) and Why Me? The Courage to

Live (Deborah Kent, 2001) in order to map the ways in which autoimmune diseases are presented to a general audience and how individuals narrate their own experiences. I then turn to systems theory and the work of Karen Barad and Vicki Kirby in an attempt to complicate the causality of these narratives and to decode the ways in which individual experience, environment, bodies, history, and bio-medical technology come together to produce "autoimmunity" and "the autoimmune patient."

Tiffany Johnson Bidler, Saint Mary's College
"A House Divided Against Itself Cannot Stand": Autoimmune Logic in Cindy Sherman and Kara Walker's Civil War Imagery
This paper locates instances of autoimmune logic in verbal and visual representations of the US Civil War in order to inform readings of a "corpus" of Civil War imagery produced by contemporary artists Kara Walker and Cindy Sherman. These pictures are "staged" with single bodies undergoing dissolution or with parts of bodies severed by the frame of the image (e.g., by the means of representation itself). They address the definition of bodies and boundaries and the way in which the unity of the self depends on establishing defenses against that which it imagines to have excluded. The Civil War was likewise fought over disagreements about the definition and defense of national bodies and boundaries. It can be understood as a conflict between two national bodies, the USA and the CSA, with the latter figured as fighting a war for independence. Lincoln understood the war as as a conflict among citizens of the same national body—some longing to preserve the Union, some longing to revolutionize it with abolition, and some longing to escape its centralized authority that undermined regional interests. For Lincoln, the dissolution of the Union takes place within the boundaries of the Union. The CSA is not a foreign body, but a limb to be recovered and sutured to preserve the unity of the body politic. The secession can thus be understood as triggering what Jacques Derrida describes as the "autoimmune suicide" of democracy. Walker and Sherman's contemporary Civil War imagery addresses the ways in which these disagreements about bodies and boundaries persist and trigger "autoimmune flare-ups."

Meredith Kooi, Emory University
Moving Misrecognition: A Performance Study of Autoimmunity
This performative presentation sets out to explore the relationship between movement-based art and the autoimmune response. Certain immunological theories of the adaptive immune system propose that the immune system develops through contact with the external world. The autoimmune response seems to be this external relationship turned inward. To complicate this boundary of internal and external, an incredible amount of foreign materials are allowed to live inside the body, called the microbiome. This presentation/performance argues that researching this phenomenon through dance gives access to an aesthetics of autoimmunity that takes into account these unstable relations of bodily recognition and belonging. "Moving Misrecognition" argues that these seemingly external/internal relations have always already been oscillating; the oscillation and "overstepping" is not the result of a confused causality. Starting from a discussion of Marina Abramović's work including Lips of Thomas (1975) and Rhythm 0 (1974), which involved audience participation at the extremes of bodily physicality, the presentation moves into an exploration of the incorporation of space into the body through techniques which are not explicitly violent. Pina Bausch's Cafe Müller (1978), performed with her company Tanztheater

Wuppertal, inhabits this bridge-space between the violent, the sensory, and the body's physicality. This presentation is interested in movement and dance in part because of their particular mimetic qualities that gives it the ability to world the world. This can be related to the khôra, which Plato describes in his Timaeus as the open space of the receptacle of being that brings being into existence. The space of dance as the khôra creates the body, space, and time, and it is this relation of the world and the immune system that this performance seeks to access.

Session 8 (I)
Landscapes of Space & Time
Chair: Cheryce von Xylander, TU Darmstadt

Don Pollack, School of the Art Institute of Chicago
34 Days to Washington
 "34 DAYS TO WASHINGTON" is about a landscape art project and a bicycling journey that covered 2046 miles from Springfield, Illinois to Washington D.C. following Abraham Lincoln's Inaugural train route. Slow travel over vast distances of rural countryside at 19th century speeds has a direct relationship to the perception of people and environment. At this time of stressed natural resources and global warming, it is necessary to recognize the importance of the bicycle as a legitimate and essential form of travel. Cycling situates a rider in an intimate relationship within the landscape where all beings are afforded equal treatment to the winds and the rain. Because of this, it is not difficult to infer a direct relationship to the insights of Lincoln's prose. However, this project is not about romanticizing history or escaping into nature. Contemporary travel relies on modern infrastructure and technology that extends vision beyond the horizon. While bicycling, modernist elements and concerns informed my environment while slow travel situated me at an intersection of centuries. This had a direct influence on the way I saw my interior and exterior space yielding writing and painting that resulted in narrative as well as abstract forms. The paintings I made were informed by a direct experience of traveling in the landscape for 34 days under human power.

Guy Conn, Emory University
Urban Parks: Constructing Nature in Literary Modernism
Shortly before undertaking his visionary design for the construction of Central Park, Frederick Law Olmsted faced a serious challenge when local politicians objected that a rural park in the middle of a major city would create a "contrast [that] will be sudden and jarring [...] the effect, we apprehend, will be grotesque." While Olmsted's plan for an accessible oasis of regenerative nature would become the norm by the end of the nineteenth century, the potentially-jarring effects of rapidly moving between Olmsted's pastoral landscapes and the busy streets and cramped skylines of major cities resonated throughout many well-known works of literary modernism. Olmsted hoped that Central Park, which began construction on the eve of the Civil War, would highlight the class, racial, and intellectual diversity that he believed was characteristic of Northern society. By crossing Olmsted's progressive politics (with the attendant drama of those class and racial crossings) with the jarring contrasts between the technological modernity of twentieth-century cities and the conspicuously differentiated, rural nature of urban park spaces, modernists were attentive to and elaborated on the boundary-shifting encounters

made possible by those parks. This paper will focus on how urban parks bring together and make strange the boundaries of class in Henry James and of species in William Carlos Williams. Both authors represent urban parks less like passive backdrops for recognizable human actors and more like Latourian mediators that actively engage, redirect, and reconfigure narrative action and actors.

Helen Gregory, University of Western Ontario
The Unintentional Museum: Mark Dion's Archaeological Digs and the Aesthetics of Garbage
Contemporary society currently produces waste in astonishing quantities, waste that is systematically removed from our homes and our consciousness, and secreted away into vast landfills already choked with mountains of trash, eroding and decaying at a perilously slow rate. These landfills have become the unintentional museums of a culture characterized by excess and rampant over-consumption. The material consequences of these excesses have been foregrounded by artists such as Mark Dion, who through performative installations, re-contextualizes and re-presents trash within the public milieu. By analyzing Dion's use of quasi-archaeological techniques to reveal the proliferation of garbage hidden below the surface of the landscape, I argue that this work is part of a larger movement towards the aestheticization of garbage. Using Rathje, Shanks, and Latour as points of reference, I compare Dion's archaeological projects to the University of Arizona's Garbage Project to illuminate how both landfills and less intentional repositories of human refuse exhibit a lack of historicity, creating a heterotopic space, or an unintentional museum that fuses both nature and culture. I conclude that Dion's work is predicated on a collaborative approach to the landscape itself, relying on the earth or rivers to reveal or deposit "artifacts," therefore preventing garbage from disappearing from our consciousness into the oblivion of the landfill. Through a purposeful aestheticization of waste, we can locate the beauty in the unsightly, instead of merely disavowing the consequences of the trajectory towards waste that characterizes the products of our society.

Session 8 (J)
Logics of Prosthesis
Chair: Dallin Lewis, Notre Dame

Eugene Halton, University of Notre Dame
The Posthuman Condition
The aim of socialization could be described as creating the conditions out of which "it might be possible to be an adult all the time." Yet in his 1932 classic, Brave New World, Aldous Huxley describes a systematized process of infantilization, a society of, "Adults intellectually and during working hours…Infants where feeling and desire are concerned." Infantilization is revealed to be the hidden cost of progressive rationalization, a regressive contrary to it, fueled by the latest developments in technology and communication, such as "soma," "feelies," "infant conditioning," and "narco-hypnosis." Lewis Mumford pictured a similar "progressive" regression in 1956 as the tragic emergence of the post-human, in his depiction of "post-historic man." By 1958, in his non-fiction Brave New World Revisited, Huxley saw that the 600 year

interim he projected for the establishment of such a society had been radically compressed, and that in fact, the postwar world was already busily institutionalizing much of what he feared, and in ways in which media and technology were heavily implicated. Many of these developments have continued today, as I shall show. Huxley's critique of contemporary society also suggests an alternative route for civilization I will develop, one re-employing the biosemiotic, communicative legacy of the human body. I will explore how elements of Huxley's and Mumford's ideas of pleasure-based, rational-infantilizing can be understood in contemporary context, and propose how a world in which children can be children and an adult can be "an adult all the time" might be possible.

Josh Carr, Arizona State University
The Dirty Joke of Cyberpunk or the Humanism of Posthumanism in the Cyberpunk Tradition: Epigenetic Memory and Technology in Gibson's Neuromancer
What does it mean to be human or for that matter, posthuman, according to a cyberpunk? This paper navigates the experience of being human in the dystopian and highly technologized future worlds found within the cyberpunk literary tradition of the 1980s and early 1990s. This work explores the implication of what it means to be posthuman in these worlds, which are comprised of virtual realities and disembodied identities. This project first addresses posthumanism as a critical theory and its destabilization of the traditional concept of humanism with particular attention to the relationship between the human being and technology. After building a theoretical framework of posthumanism based on works by Martin Heidegger, Jacques Derrida, and Bernard Stiegler, this paper then offers a survey of the cyberpunk tradition and the key themes developed and examined within the genre. This paper then investigates William Gibson's 1984 novel, Neuromancer, in order to trace a becoming posthuman as it is found within cyberpunk. As this paper further explains, the process of uncovering the posthuman within this text produces a sense of loss and also nostalgia for a previous experience of being human which was already posthuman. The cyberpunk tradition therefore reveals that there has always already been a degree of indeterminacy surrounding the question of what it means to be human. Through destabilizing traditionally held conceptions of humanism, cyberpunk and posthumanism offer the potential to rethink ourselves and our comportment towards the world knowing that technology always already informs our experience of being human.

Mark Martinez, University of Minnesota
Human Factors (Ergonomics) and its Possible New Humanities
This project discusses the history of Ergonomics or "Human Factors research" (HFR) as it became an autonomous scientific field. Human Factors is the science of creating technological systems, as well as theories of technologies, whose functional imperative begins and ends with the well being of a human user. There is not a device today that has been designed without the influence of HFR. Emerging along side computers, the history of HFR expresses the strongest empirical desire to study the interaction between human beings and technology with an openness to the experimental outcomes. The human desire to understand the "proper" or best relationship between a human being and a tool is ancient, as is the tendency to record that relationship. For example, Plato's discussion in the Phaedrus of the proper use of the technology of writing to human memory, or to Neolithic age cave paintings depicting successful hunting with the bow and arrow, show innate and intimate register with which humans think about their uses of

technology. It is in this sense that Ergonomics is arguably an intensification of a kind of knowledge that has been in the making for thousands of years. This intensification has come about with the increasing significance of the "machine" as the predominate aid to human life, and has produced an even newer field of knowledge, namely Human Factors research, which has risen alongside the modern digital computer. Human Factors has, I argue, shifted the philosophical, scientific, and popular conceptions of the human being.

Session 8 (K)
Fluxus Machines
Chair: James W. McManus, California State University at Chico

Fifty years ago, in 1963, George Maciunas released his Fluxus Manifesto into the world. For him, Fluxus had the potential to "purge the world of bourgeois sickness [and] promote a revolutionary flood and tide in art." What followed Maciunas' declaration were acts of poetry, performance and object making--almost all of which aimed to integrate art into life in ways that were informed by the Dadaists and Surrealists before them. One of the most interesting ways in which Fluxus artists integrated art and life involved the incorporation of science and technology. Maciunas, for example, was deeply interested in technologies of learning, and artists like Nam June Paik and Joe Jones made work that deployed electronics and motorized components. The *Grove Encyclopedia of Art* wrongly claims that Fluxus' lifespan stretched from the early 1960s to the late 1970s. On the contrary, as the name suggests, Fluxus continues today as an open and vital force affecting flow between art and life. In addition to papers on Fluxus itself, we have included contributions that consider the influence of Fluxus on other artists who engage science and technology in their work.

Christopher Lonegan, Loyala University
Joseph Beuys: The Anatomy of 'Care' and the 'Science of Freedom' in *Show Your Wound* and *Double Object*
In this paper I argue that the intersection of Fluxus, medicine, and anatomical illustration contribute to Joseph Beuys' vision of art as "a science of freedom." Beuys, as a cosmic anatomist of Being, exhibits a subtle and deep understanding of Heidegger's concepts of "care" and "technology" while appropriating motifs from anatomical illustration and medicine. Evident in *Show Your Wound* and *Double Object,* I argue, are persistent anatomical and medical themes found in the work of Joseph Beuys: the diagram, the wound, the conceit of the self demonstrating cadaver, the display of action tools as "clinical" instruments of global healing, and traces of an absent body marking a universal vessel of "care' and "warmth." Acknowledging the inevitability of death as a motivating mystery, and the extraordinary power of everyday objects in the hands of the artist-physician, Beuys' work, I argue, prescribes a Fluxus anodyne for anxieties about technology and the future of humanity. Beuys, like generations of anatomical artists before him, deliberately employs the aesthetic to conjoin the medical/scientific/anatomical and the spiritual; his "bodies" transformed from the "flesh" of science into the "spirit" of a sacred relic and aesthetic object.

Kate Dempsey Martineau, Keene State College
Ray Johnson in the Age of Photocopier Reproduction
In this paper I argue that the intersection of Fluxus, medicine, and anatomical illustration contribute to Joseph Beuys' vision of art as "a science of freedom." Beuys, as a cosmic anatomist of Being, exhibits a subtle and deep understanding of Heidegger's concepts of "care" and "technology" while appropriating motifs from anatomical illustration and medicine. Evident in *Show Your Wound* and *Double Object,* I argue, are persistent anatomical and medical themes found in the work of Joseph Beuys: the diagram, the wound, the conceit of the self demonstrating cadaver, the display of action tools as "clinical" instruments of global healing, and traces of an absent body marking a universal vessel of "care' and "warmth." Acknowledging the inevitability of death as a motivating mystery, and the extraordinary power of everyday objects in the hands of the artist-physician, Beuys' work, I argue, prescribes a Fluxus anodyne for anxieties about technology and the future of humanity. Beuys, like generations of anatomical artists before him, deliberately employs the aesthetic to conjoin the medical/scientific/anatomical and the spiritual; his "bodies" transformed from the "flesh" of science into the "spirit" of a sacred relic and aesthetic object.

Gregory Zinman.
 Nam June Paik'sInteractive Media Interventions
Cinema's digital turn has wrought numerous changes in its production, dissemination, and reception. And yet these issues, along with their concomitant concerns over appropriation, portability, and open media access, did not develop overnight. Rather, they were established over decades of both technical experimentation and artistic negotiation between dominant commercial and marginal media cultures. An examination of the pioneering media projects of video artist Nam June Paik thus illuminates how the artistic and technological roots of dissent and interactivity—as championed by Fluxus—have thoroughly permeated our current digital culture. More specifically, this paper will identify the ways in which Paik's moving image art has helped shape an outlook on new media that is simultaneously utopian and wary of systems of control. I will examine two of Paik's early interactive television works, *Participation TV* (1963- 66) and *TV Crown* (1965) in order to demonstrate how they enact a social circuit between maker and receiver, generated by the artist's deep understanding of the technological materials used in their construction. By modeling the appropriation and unconventional use of television, Paik demonstrates the value in rejecting dominant media paradigms of use and reception, as well as the pleasure derived from taking literal control of media as a kind of personal visual instrument, all while eliminating the social and cultural distance between artist and viewer/player. I will show how these aims and characteristics, in turn, are determining factors shaping much of today's digital media art.

12:30 p.m.—2 p.m. Business Lunch , Downstairs McKenna Hall

Session 9 - Saturday 2pm -3:30pm

Session 9 (A)
The Cultural Work of Neo-Darwinism
Chair: John Bruni

This panel starts with the idea that neo-Darwinist thinking about gender is a sort of myth: it is hard to pin down, is indeterminate, and is rooted in dominant cultural beliefs about power. We seek to track the trajectory of neo-Darwinist tropes through the late-nineteenth and twentieth centuries. The question we then want to ask is: how does neo-Darwinist doctrine hide in plain sight in scientific fact-making and its cultural representations? Jeanette Eileen Jones examines two poems that naturalize the controversial idea of the missing link that mediates the gender- and race-based conflicts in August Weismann's "germ-plasm theory" of heredity. Next, John Bruni plunges into the 1970s to show how John Cassavetes's film Husbands interrogates the neo-Darwinist tropes of masculine competition, domination, and exploitation. Lastly, Patrick B. Sharp explores how authors such as Ernest Callenbach, Octavia Butler, and Robert Sawyer use alternative models of evolution that question neo-Darwinist formulations of colonialism, capitalism, race, and gender. Collectively and individually we pressure how neo-Darwinism justifies a simplistic idea of power as it impacts the formation of gender, nation, and biology. Our goal is to shed light on how capitalist competition requires a reductive reading of evolution that gets routed back through popular culture. It becomes a feedback loop that seems to exist everywhere at once. If the cultural work of mythology seems similar, then perhaps we can say neo-Darwinism is the most significant myth to deconstruct.

Jeanette Eileen Jones, University of Nebraska at Lincoln
"The Thoughtless Ebon Maid": Neo-Darwinism, Gender, and 19th Century Poetry on the Missing Link
In his article "Neo-Lamarckism and Neo-Darwinism" (1894), L.H. Bailey explains the "philosophy" of Neo-Darwinism that became popular after German evolutionary biologist August Weismann developed his "germ plasm theory" of heredity. A synthesis of Darwin's theory of evolution—specifically his principle of natural selection—and what became known as genetics, Weismann's The Germ-Plasm: A Theory of Heredity (1893) held that variation resulted from "the union of the sexes". "Sexual reproduction" served as the mechanism for variation and natural selection, and thus "any new or acquired character originating in the body of the organism cannot be transmitted" (667). While Neo-Darwinism's impact on nineteenth century scientific thought was significant to understanding genetics and the transmission of traits, scientists and laymen still grappled with what they believed was the most important conundrum of Darwin's work—the evolution of humanity from "some lesser form". Scientists, laymen, and intellectuals expressed much of this angst in treatises, pamphlets, lectures, and scientific papers. Concurrently, writers used fiction literature and poetry to work out these same concerns. Jones examines satirical poems that engage the neo-Darwinist paradigm in an attempt to make sense of "Mr. Darwin's missing link." Offering a close reading of two poems, "To the Gorilla in the Rochester University" (1864) and "The Missing Link" (1880), which appeared before Weismann's publication, Jones reveals how those works' discussion of the "ethnic chasm from baboon to man" prefigured the germ-plasm theory of heredity.

John Bruni, Grand Valley State University
"You're Never Going to See It Again:" The Appearance of Masculinity in John Cassavetes's Husbands
After screening a rough cut of Husbands (1970) that received an enthusiastic response from the audience, John Cassavetes said to Peter Falk (who acted in the film), "Remember that version, because you're never going to see it again." Cassavetes was troubled by the audience's easy identification with the three middle-aged male characters (Harry, Gus, and Archie)—implying that these characters' problems that Cassavetes wished to examine had turned into just another form of consumer-based entertainment. The recut version resists what Cary Wolfe calls "a consumerist schematization of visuality." Thus Cassavetes interrogates the ways that film plugs into a capitalist economy of masculine competition. This paper shows how Cassavetes is especially critical of neo-Darwinist tropes such as domination and exploitation. Cassavetes intends to make the viewer uncomfortable with a rationalization of his characters' actions, which peaks during the final scene in London when Harry, in a symbolic act of dropping out and saying goodbye to Gus and Archie, makes a threatening comment to the ladies he has picked up: "You can be replaced." Bruni pays particular attention to the return home of Gus and Archie, having left "swinging London" (a fantasy-land of male desire) and reassumed their identities as husbands/fathers. Bruni argues that Cassavetes sees no winners, nor losers, in a conclusion that subverts the idea of a happy ending and points out how resolutions get sold in the entertainment market. Cassavetes is not buying it.

Patrick B. Sharp, California State University at Los Angeles
Ecotopia and Evolution: (Anti)Colonialism in Ecological SF
Evolutionary narratives of human nature were the product of colonial scientific projects of the late nineteenth century. This period also saw the emergence of science fiction as a genre, and SF writers have consistently turned to narratives of a human evolutionary past to try to imagine possible utopian futures. The same can be said of writers focused on ecological issues: Rachel Carson's Silent Spring (1962) emphasized how artificial toxic chemicals were entering the biosphere faster than organisms could adapt, an observation that fueled countless ecological disaster scenarios. By the 1970s, writers such as Ernest Callenbach were borrowing evolutionary narratives from contemporary anthropology to imagine how human animals could live in harmony with nature within an Ecotopia (1975). Octavia Butler also drew heavily from evolutionary biology in Dawn (1987) when imagining how humanity could survive a nuclear apocalypse and evolve in a more controlled way that overcame our destructive genes and healed the environment. More recently, Canadian novelist Robert Sawyer explored the possibilities of alternative models of evolution for the environment in his Neanderthal Parallax trilogy. Sharp examines the ways in which these authors attempt to estrange the colonial imagination of capitalist progress, an imagination that has been associated with unsustainable economic models and social systems. Using evolutionary narratives, these authors try to imagine worlds where capitalist expansionism is challenged and rejected. However, Sharp also shows the ways in which the colonial imagination of evolutionary narrative still naturalizes problematic relationships between individuals, genders, races, and species in these texts. As such, Sharp argues for a more critical approach to evolutionary narrative within eco-criticism.

Session 9 (B)
Finance Capital, Temporality, and the Postnatural II
Chair: Katherine Hayles, Duke

This panel consists of three talks exploring the relation between temporality, posthuman trading, and finance capital. The "postnatural," concerned with issues of sustainability in the contemporary world, cannot be thought separately from finance capital, now estimated to comprise about 40% of all economic activity in the US. As a speculative endeavor, finance capital makes bets on the future and in the process actually helps to produce the future. Thus the construction of temporality is as endemic to finance capital as it is to sustainability. With algorithmic trading now comprising about 75% of all trades, the resulting nonhuman ecology also transforms temporality from the macro scale of human perception to the microtemporalities of machine processing. The implications of these constructions of temporality, and their implications for social and cultural productions, are interrogated as summarized in the following abstracts.

David Rambo, Duke University
Limits to Abstraction: Financialization of the Medium of Thought
In the tradition of the Marxian concept of real abstraction I ask, how does the perilous instrumentality of contemporary finance condition what is thinkable? My main encounter is with derivatives trader and author of "The Blank Swan." Elie Ayache, who, in describing derivatives as a pricing tool which writes the future, argues "that the market is indeed a general category of thought." However, that financial products assess not value but the value-form of price has at stake the distinction between providing either an abstract form unique to thought and legitimate for critique, or a mere representation of commodification's expanding commensurability. For the latter would redound to a commodity fetishism of the money-form. The task of my paper will be to cross-examine the ontological primacy of contingency, posed by Ayache through the market's internal differentiation of price, with the arguments made by Robert Brenner and Yanis Varoufakis that the collapse of the banking industry is a misleading scapegoat which obfuscates a four-decades-long stagnation in capitalist accumulation. Does the contingency claim of the derivative, which by Ayache's logic precedes exchange and price, contribute to a materialist philosophy? Or does finance capital operate in an ideological register possibly more important to expanding the limits of capital's reproduction than the functional register of credit and debt securitization?

Sara Nelson, University of Minnesota
"Service Ecologies: Rent and Finance Beyond the Knowledge Economy"
Ecosystem service commodities (ESCs) play a leading role in environmental conservation, and are at the forefront of international responses to climate change through, for example, markets in greenhouse gas emissions and biodiversity credits. ESCs measure and monetize units of ecosystem function (such as greenhouse gas sequestration), the use-rights to which can then be banked or traded. In addition to representing a significant change in conservation and environmental management, ESCs and their derivative products have become lucrative

opportunities for speculative capital. This paper engages critically with analyses of cognitive capitalism and financialization to argue that an understanding of contemporary financialization needs to account for the new ways in which nonhuman natures are enrolled in circuits of capital. I argue that, by translating ecosystemic relations into financial commodities amenable to instant electronic exchange, ESCs are symptomatic of a fundamental change in the way that nonhuman natures are rendered economically productive in the post-Fordist period. In particular, I engage with the thesis put forward by Carlo Vercellone that contemporary financialization is characterized by a blurring of the line between profit and rent, as novel financial products extract value from the social common in large part through new forms of intellectual property right. Through an analysis of ESCs, I argue that the new forms of enclosure that characterize the "knowledge economy" extend to nonhuman natures as well. If, as Vercellone argues, financial markets operate as mechanisms for the expropriation of a post-capitalist common, this common is also a posthuman one.

Gerry Canavan, Marquette University
Vile Offspring of the Long Postmodern: Capital as Artificial Intelligence
In the 1990s "Mars trilogy" for which he is best known, Kim Stanley Robinson imagined a utopian future in which everything (after much struggle) seems to turn out more or less all right. But in Charlie Stross's *Accelerando,* which takes its name from Robinson's term for the Singularity, we find instead the orthogonal anticipation of the future: here the Singularity is not the moment the computers become self-aware but the moment *corporations* do. The newly sentient corporations of Stross's nightmare future immediately start trading incomprehensible financial products with each other at impossibly high speeds, not only crashing the planetary economy but literally consuming the Earth; what humans remain are forced to flee for their lives to the outskirts of the solar system, in order to survive in the margins of Capitalism 2.0. Here we find a science fictional allegorization of automated, informationalized capitalism that is—in its exploitative labor practices, in its anti-ecological destructivity, and in its self-inflicted propensity towards crisis and catastrophic collapse—increasingly hostile to the human. It is the market that now, famously, "speaks," and we who must listen. Contemporary finance capital, divorced from any rational relationship to human labor and material-natural constraint, and already totally out of human control, becomes revealed as a dangerously alien, postnatural "artificial intelligence" that is endemically opposed to the true needs of both human beings and nonhuman animals—not on some distant planet in some improbable future, but here and now, in our present.

Session 9 (C)
Fat Black Monkeys: Systems thinking and critical culture in the choreography of the Other.
Chair: Grisha Coleman

This panel considers primates, big data, obesity, performance, and black speculative fictions in a conversation to explore the function of choreography within and beyond the context of dance. Our conversation organizes around emergent systems for movement strategies, aiming to explore the ways in which choreographic approaches to understanding movement can function for human and nonhuman bodies. By framing the discussion through choreographic analysis of the animal

body, the data body, the black body and our technological bodies, themes of objectification and strategies for movement are set in high contrast, revealing the assumptions and expectations that continue to exist in how choreography of dance is considered. At the same time, when applied to areas of research outside of dance, the notion of tactical bodies and choreographic thinking [ways of organizing movement in time and space], affords us a rich lens through which to navigate meaning between the metaphoric and the literal, the physical and the digital, the intentional, constructed and emergent in movement systems. This panel offers an opportunity to leap distances between disciplinary discourses to gain insight into what we understand from the tactical actions of primates, the intentions and structures of race, and the literal and metaphorical ways we move with, towards and behind our technologies.

Grisha Coleman, Arizona State University
Hybrid Action: Treadmill Dreamtime running, in place
Assumptions of physical presence continue to shift in contemporary models of live performance, with the digital landscape creating new possibilities for how we receive, perceive, and participate inside of the live event. Choreographies that include the public [non-dancing bodies], performers [dancing bodies], and treadmills [non-human, moving objects], can be a site for playing with notions of presence, proximity, interaction and hybrid [digital/physical] networks of communication. echo::system is a fusion of art installation, choreographed multi-media performance, and public engagement that looks to mediate meaningful connections between humans and our environments. Gym treadmills are re-conceived as interactive interfaces for public and performers to 'take a walk' - emphasizing an embodied experience of navigation through mediated landscapes of dynamic, geo-located, data [e.g. air toxicity levels or median family income] to reveal the invisible, disembodied, abstracted information in a highly physical, sensory, event. In performance, these 'walks on treadmills' become the central trope for the choreography, highlighting the absurd nature of the mechanical prosthetic, a controlled system to assist, focus and monitor your body. The walk also references the walkabout, the well known rite-of-passage for indigenous people of central Australia, traveling on foot, navigating with the learned knowledge of song and dance to orient themselves geographically, historically, and cosmologically.

Deborah Forster, University of California at San Diego
Body Torque as Composite Attention in Non-Dancing Monkeys
Baboons lack language, material culture and truly collaborative tasks. The complex 'dance' of socio-cognitive negotiation is therefore writ in bodies moving in space. I will demonstrate how these dynamics can be read, in state-space, on multiple timescales and levels of description so that the socio-cognitive challenge confronting baboons can begin to make sense to the primatologists studying them. I will contrast this 'reading' with a narrative structure of film noir produced in collaboration with media artist, Rachel Mayeri, as part of her Primate Cinema series (www.rachelmayeri.com)

Stephanie Batiste, University of California at Santa Barbara
Tentacles, Flesh and the Possibility of Human Interpenetration: Attraction and Revulsion in Octavia Bulter's Dawn

This paper engages the choreography of emotion, distance, embodiment, and connection in the speculative science fiction novel Dawn (1997) by Octavia Butler. In it multi-tentacled, worm-, snake-, and maggot-like bodies of aliens propose a challenge to African American protagonist Lilith Iyapo's acceptance of the fact of human annihilation and the aliens' offering of otherworldly salvation. The beings, called Oankali, communicate through touch drawing humans into a physical pas-de-deux of reaching and avoidance, attraction and antipathy, desire and revulsion with an alien force destined to appropriate their biology and incontrovertibly alter humanity forever. Fleshly interpenetration of skin, neural nets, and genes provides a model of communication and pleasure between species that is accompanied by ever-present physical and emotional revulsion. I argue that the physical meetings, partings, and exchanges through which humans and aliens dance this genetic merging of species enacts modes of embodied human inter-connectedness and interdependence as a form of intelligent, non rational exchange.

Katherine Behar, Baruch College, CUNY
Decelerated Data: Choreographing Lethargy in Big Data and Obesity
In this paper I consider how postnatural big bodies move. Examining the enlarged corpuses of big data and obesity, I track how postnatural bigness un-choreographes the structure, meaning, and potentialities a natural subject, understood as an individual, political subject, possessed of a singular body, and disposed to movement. I recommend lethargy as a form of choreography for inactive—perhaps inactivist—bodies. The big bodies of big data and obesity have a "natural" propensity to move slowly. Their lethargy represents both an alternative to dance as expression of "fit" (governable) subjecthood, and a technique for withstanding the drive toward fast data embodied by software data accelerators. Questioning the big as a political form, I draw from yogic philosophy and Elizabeth Grosz's politics of imperceptibility to arrive at a politics of lethargy. Lethargic deceleration represents a radical slowdown that defies spritely individual ambition, and frustrates neoliberal exchanges of self.

Session 9 (D) Open. No panel.

Session 9 (E)
Beyond Biopolitics: Papers from the Society for Biopolitical Futures--Panel Three: Immunity, Sovereignty, Control
Chair: Cary Wolfe, Rice University

On April 5 and 6, 2013 a group of scholars met at the Syracuse University Humanities Center for the inaugural meeting of The Society for Biopolitical Futures, supported by both the Center and by the Central New York Humanities Corridor project of the Mellon Foundation. In the words of the Center′s Founding Director, Gregg Lambert, the Society is loosely modeled ʻon the establishment and activities of the College of Sociology between 1937-1939. The College took as its ʻprecise object of contemplative activity,′ according to the collective statement by its members ʻthe name of Sacred Sociology, implying the study of all manifestations of social existence where the active presence of the sacred is clear. It intends to establish in this way the points of coincidence between the fundamental obsessive tendencies of individual psychology

and the principle structures that govern social organization and are in command of its revolutions.′ Today, if there is any name that could serve to replace the sociological and anthropological notion of the `sacred,′ it is the current names of `bio-power′ and the `bio-political.′ This association has both interesting and problematic consequences, which will be the subject of the Society′s collective research." This stream of sessions presents work that has evolved out of the initial meeting of the Society for Biopolitical Futures and concludes with a roundtable discussion by Society presenters on the present state of biopolitical thought and its possible futures.

Gregg Lambert, Syracuse University
"To have done with `the state of exception'"
One of the most glaring contradictions from Deleuze's reading of Foucault's concept of bio power is contained in the following observation: "When the diagram of power abandons the model of sovereignty in favor of a disciplinary model, when it becomes the 'bio-power' or 'bio-politics' of populations, controlling and administering life, it is indeed life that emerges as the new object of power. At that point law renounces that symbol of sovereign privilege, the right to put someone to death (the death penalty), but allows itself to produce all the more hecatombs and genocides ... from that point on the death penalty tends to be abolished and holocausts grow 'for the same reasons', testifying all the more effectively to the death of man." Perhaps, in the simplest of terms, this glaring contradiction can be explained by the continued investment in the concept of sovereignty at the individual level (I.e. freedom), as a final measure of protection from exposure to bare life, and; at the same time, an increasing tendency to exclude entire populations to the threat of extinction according to juridical and economic calculations bent on controlling a quantitative imbalance in the mechanisms of control (health, population, birthrate, education, criminality, and social debt).

Gregory Flaxman, University of North Carolina at Chapel Hill
The Genealogy of Control
What do we mean by "control"? Deleuze formulates an answer, in "Postscript on Control Societies," with explicit reference to Foucault, and it is between the two that this paper seeks to renew the concept. In particular, I argue that the legal and epistolary conceit of the postscript gesture to three prior occasions. The first and most obvious occasion for the postscript is Deleuze's 1990 interview with Toni Negri, "Control Societies," which provides the ostensible pretext for the "Postscript." The second occasion is Deleuze's s book on Foucault, which appeared in 1986. Finally, the third occasion, and the one on which I'm going to linger, is The Birth of Biopolitics, Foucault's posthumously published lectures at the College de France in 1978-1979. The trajectory of these instances augur the fundamental project for any future concept of control, namely, the coupling of Deleuze's social diagram of "dividuating" power and Foucault's history of politico-economic techniques. Inasmuch as this genealogy of control returns to the history of neoliberalism (the real subject of The Birth of Biopolitics), this paper devotes particular attention to the nature of the late-capitalist machine with which control is immanent. Perhaps the most interesting aspect of this line of inquiry, and the one with which I conclude, concerns the proliferation of the logic in relation to singularities, events, markets— even nature itself—which seem to be out of control. In fact, I argue that control designates the transformation of power in relation to conditions that are "far from equilibrium."

Cary Wolfe, Rice University
(Un)Thinking the (Bio)Political
This paper will take at its word Roberto Esposito's insistence that the immunitary mechanism is the fundamental mode of modern biopolitics (a fact, he insists, that Michel Foucault's inaugural writings on the biopolitical did not fully recognize or explore). Esposito's work references how the immunitary paradigm has been used by Donna Haraway, Niklas Luhmann, and others, but stops short of fully cross-mapping its relations to the logic of the *pharmakon* (in Derrida) and of autopoietic self-reference of social systems (in Luhmann), and in doing so it fails to appreciate the constraints on the force of the political that this fuller theoretical articulation would reveal. Insofar as the paradigm of the biopolitical *is* immunitary, it is destined to the same fate as the political in Luhmann's theory of self-referential autopoietic systems; that is to say, it is destined to eventuate in a constitutively "weak" concept of the political vis a vis its inability to overdetermine or steer the autopoietic operations of other social systems (most conspicuously, of course, the economic system), which in turn has important ramifications for how we think about the relation of the political to the broader field and valences of biopolitical effectivity. A core problem with Esposito's work, then (to put it telegraphically), is that on the one hand it wants to insist on a self-referential, immunitary concept of the biopolitical, while at the same time holding onto a concept of the political that is strong in force and broad in sweep (a la Agamben). This paper will suggest instead that precisely insofar as we take the political seriously we will necessarily end up with a weak concept of the political and will be forced to think the "place" of the political in relation to what Esposito and others call the "impolitical" and draw out the complex relationship between the essentially "tragic" and "thanatopolitical" drift of biopolitics in modernity and what Kenneth Burke calls "comic correctives" that think questions of politics by means of a logic quite different from that of a sovereignty that is self-referential and yet not self-de(con)structive—the very logic that constituted the tragic drift of biopolitical thought thus far.

Session 9 (F)
NanoPop
Chair: Paul Youngman

From the I-pod Nano to The Nano car produced by the Indian company Tata Motors, to the many media efforts to popularize or to take advantage of its effectiveness as a metaphor, nanoscience and technology (NST) is growing in popularity and often times quite apart from the actual science. This panel takes a look at several of these popularization efforts with a focus on Germany and the United States. First, Paul Youngman will present an analysis of the NST exhibit at the German Museum of Science and Technology in Munich, Germany. Next, Curtis Correll examines the phenomenon of nanoart – a relatively new entry to the art world that exists at the very intersection of art and science. Finally, Matt Bittner will compare documentary efforts at popularization in Germany and the United States. In Germany, the television network ZDF has a series on NST and society and in the United States the Nanoscale Informal Science Education (NISE) network has many documentaries designed to educate the public on NST. The single

question that will tie all three presentations together is: What is it about the nature of NST that seems to require popularization efforts like these?

Matt Bittner, Washington and Lee University
As Seen on TV: Public Education Efforts in Nanoscience and Technology
From the I-pod Nano to The Nano car produced by the Indian company Tata Motors, to the many media efforts to popularize or to take advantage of its effectiveness as a metaphor, nanoscience and technology (NST) is growing in popularity and often times quite apart from the actual science. This panel takes a look at several of these popularization efforts with a focus on Germany and the United States. Matt Bittner will compare documentary efforts at popularization in Germany and the United States. In Germany, the television network ZDF has a series on NST and society and in the United States the Nanoscale Informal Science Education (NISE) network has many documentaries designed to educate the public on NST. Bittner will examine the effectiveness of such efforts from the point of view of a scientist and also discuss the underlying motivation behind these video series.

Curtus Correll, Washington and Lee University
Nanoart
From the I-pod Nano to The Nano car produced by the Indian company Tata Motors, to the many media efforts to popularize or to take advantage of its effectiveness as a metaphor, nanoscience and technology (NST) is growing in popularity and often times quite apart from the actual science. This panel takes a look at several of these popularization efforts with a focus on Germany and the United States. Curtis Correll examines the phenomenon of nanoart ʻ a relatively new entry to the art world that exists at the very intersection of art and science. Correllʹs analysis is twofold. First, he discusses the nature of images that are not images as we traditionally understand them given that nanoparticles exist in a world without light and shadow. Second, he will analyze how such images add to the diverse discourse surrounding NST.

Curtus Correll & Paul Youngman, Washington and Lee University
Nanoscience and Technology in the Modern Science Museum
From the I-pod Nano to The Nano car produced by the Indian company Tata Motors, to the many media efforts to popularize or to take advantage of its effectiveness as a metaphor, nanoscience and technology (NST) is growing in popularity and often times quite apart from the actual science. This panel takes a look at several of these popularization efforts with a focus on Germany and the United States. Paul Youngman will present an analysis of the NST exhibit at the German Museum of Science and Technology in Munich, Germany. Youngman examines the history of such exhibits and the techniques in place at the German Museum to help the public grasp this emergent science. Moreover, Youngman will discuss the motivation behind such exhibits.

Session 9 (G)
Plague: Bacteria
Chair: Suzie Park, Eastern Illinois University

Astrid Schrader, Eastern Illinois University
Time, Affect and Suicidal Microbes
In the tradition of Western philosophy nonhuman animals don't have 'time'. Temporality, which Martin Heidegger associates with auto-affection – giving oneself a presence, would be an exclusive human characteristic. Without access to knowledge and an experience of death as such, animals don't die; they merely perish. Accordingly, marine microbes such as unicellular algae have been considered immortal unless eaten by predators. As marine ecologists recognize phytoplankton's important role in the global carbon cycle, the assumption of their atemporal existence is currently revised. Microbiologists suggest that under specific conditions entire populations of phytoplankton actively kill themselves. Drawing on empirical research into programmed cell death in marine microbes, I explore how an affirmation of phytoplankton's mortality may reconstruct the relationship between life and death, biological individuality and assumptions about a natural teleology. In multicellular animal bodies programmed cell death is associated with a purpose; some individual cells must die in order to keep the organism alive. As long as individual cells are considered parts of a larger system (organism), their death seems to make sense in evolutionary terms. But why would unicellular phytoplankton actively kill themselves? Reading this research together with the Derridean move from autoaffection, which forms the basis of selfhood in humans and cells towards heteroaffection that recognizes that death is intrinsic to life and the 'other' always already part of the 'self', I explore how the deconstruction of individuality from within biology may suggests alternatives to our anthropocentric notion of time and affectivity in scientific knowledge production.

Kari Nixon, Southen Mechodist University
Seeing Things: The Dilemma of Visual Subjectivity in a Post-Microbiological Age
KIIL: I never thought you would try any monkey tricks….Wasn't it something about some little creatures that had got into the water pipes? DR. STOCKMANN: That's right. Bacteria. KIIL: And yet nobody can see them—isn't that what they say? –Enemy of the People, 1882 *** Germ theory gained acceptance in the 1870s after the development of sophisticated lenses made microscopic sight of bacteria possible. Most historical accounts of microbiology assert that from this point on, germs, now identifiable through the objective lens microscope, were vitiated of much of their threatening potential. However, Victorians were keenly aware of the ultimate subjectivity of visual perception even as advanced technology allowed for greater microscopic sight. By analyzing two late-nineteenth-century plays (An Enemy of the People and The Father) whose plots hinge on ambivalence about microscopic sight, I explore the paradoxical fact that for Victorians, increased visual acuity seemed to destabilize the very possibility of objective visual perception and even scientific knowledge. Because the technological capacity of the microscope allowed for the development of the field of microbiology and the concomitant solidification of germ theory, I argue moreover that we must reconsider the notion that Victorians unequivocally accepted germ theory as a conceptual framework with intrinsic social utility. In fact, uncertainty about these cosmologies undergirds the often acerbic fin de siècle skepticism about the ability of mechanized science to make valuable claims about the natural world.

Annika Mann, Arizona State University
After Contagion: English Plague Writing of the 1720s

My paper explores one historical articulation and theorization of the "postNatural" in medical discourse on contagious disease during the first quarter of the eighteenth century. During the 1720s, upon the reappearance of the black plague in Marseilles, medical writers in England attempt to locate and measure contagious disease. Without a germ theory of disease, however, these medical texts continually perform their inability to do so, as contagion's resolutely invisible operations collapse infection and propagation, cause and effect. Instead, these texts describe affinities amongst porous, absorptive substances such as bodily fluids, air, and commercial goods, which become "contagious" via their contact with one another. These affinities ultimately register the inextricability of the human body and its surrounding world, a world the human body absorbs, infects, and thereby helps to create. The inextricability of the human and the non-human, culture and nature, is the topic of Daniel Defoe's A Journal of the Plague Year (1722), where he explores how contagion might be a particularly apt model for understanding the circulation of texts. In his heterogeneous Journal—composed of anecdotes, printed miscellany, Bills of Mortality, tables, etc.— Defoe stages the physiological environment of London during the 1665 plague as a crisis of representation, illustrating the impossibility of finding a representational form that can organize and sanitize a diseased urban space. But this crisis proves generative: faced with the failure of representation to manage disease, Defoe's narrator records instead how writing as a medium might work to propagate alternative social communities and collective forms.

Justin Derry, York University
The Post-Nature Virus and Zoonotic Actants: Troping Post-Nature, Ecological Relations
Throughout human history plagues, miasmas and pandemics have been part of the making and re-making of various nature/culture, human/nonhuman environments. Yet in presupposing the entangled intra-action of the natural, cultural, biological and technological, zoonotic viruses, such as the SARS and H1N1 viruas, uniquely attest to our post-nature, eco-historical reality by looping through the human, animal and technical in particular ways, with particular world defining effects. With this, the general question that will animate this paper is how zoonotic actants, such as H1N1 and SARS, work to materially and discursively trope ecological relations within our current eco-historical reality. Using speculative realist and new materialist theory, I aim to show how zoonotic actants can be seen as units contributing to the production of a 'post' nature ethos or consciousness. I also aim to show how phenomena such as global warming and the notion of the Anthropocene are co-actors along with zoonotic actants in our 'post' nature phase of modernity, while also showing how this phase of modernity differs from other phases of 'post' modern history. Finally, the ultimate aim of this paper is to speculate on how various ecological beings that are 'post' nature differentially create experiences of space and time, presence and absence, life and death.

Session 9 (H)
Book Panel
Anne Pollock's *Medicating Race: Heart Disease and Durable Preoccupations with Difference* (Duke UP, 2012)
Anne Pollock, Georgia Institute of Technology

Atia Sattar, University of Southern California
Lorenzo Servitje, University of California at Riverside
Todd Carmody
Eliza Slavet

Session 9 (I)
The Postnatural Renaissance
Chair: Jessica Wolfe

This panel brings together work on the literary, visual, and scientific cultures of the Renaissance to explore how writers, scholars, and artists interrogate and challenge the boundaries between the living and the dead and the organic and the inorganic.

Miriam Jacobson, University of Georgia
The Mummy Cure: Medicinal Cannibalism in Pericles
In sixteenth- and seventeenth-century Europe, people ate other people. Mummy, or Mumia as it was called by doctors of physic, scholars, travelers, and botanists, was composed of cured, desiccated human remains and sold in apothecary shops to cure epilepsy and heart failure. These remains might derive from ancient Egyptian or Libyan mummies retrieved from the pyramids, from corpses buried in the Arabian desert, or even from anatomical cadavers closer to home. But equally interesting is that fact that early modern writers classified Mummy not as an animal, but as a mineral and botanical. Mummy—the whole thing, not simply the embalming bitumen— appears in numerous early modern herbals, among the plants, natural minerals, and earths purported to heal ailments. And yet early modern medial treatises and travelers' account attest that people knew that they were ingesting human remains. Shakespeare's and Wilkins's play Pericles is set along the North African and Eastern Mediterranean coast, where the trade in Mummy originated. In this paper, I argue that Pericles dramatizes this slippage in classification, presenting the catatonic body of Pericles's wife, Thaisa, as a mummy for whom botanical Mummy is the only cure. In Pericles, bodies and families are separated, devoured and consumed by other bodies, including the ravenous, bilious sea. Thaisa's transformation into mummy legitimates a form of allowable cannibalism that stabilizes the uncertain early modern Mediterranean mercantile economy.

Wendy Hyman, Oberlin College
Arcimboldo against the Anthropocene
The fantastical Mannerist portraits of Giuseppe Arcimboldo (1527-93) have unsettled viewers for centuries for their presentation of human figures as uncanny bricolages of natural elements -- fishheads, coral, clematis. In one sense, they gesture back to the medieval view of human character as allegorical -- Arcimboldo's "Cook" has a roast suckling brow -- from an alternate perspective, these assemblages represent the emergence of Renaissance innovation and wit, in which images are built out of puns, metonymns, and other rhetorical devices. This paper reconsiders Arcimboldo's work in light of emergent theories of the post-natural, especially those "object-oriented ontologies" that view the human and the inhuman, the organic and the inorganic, as non-hierarchical collaborators. Critical convention invites us to see the poetic and painterly results as anatomizing, even dehumanizing. But I will instead propose that for Arcimboldo, the

endless combination and recombination of natural elements creates post-organic -- but not necessarily anti-human or anti-nature -- hybrids. Arcimboldo's composite human figures are more, not less, than the sum of their parts. As with Lucretius before him -- and, I will suggest, El Anatsui after him -- Arcimboldo draws from found material elements proof not only of human grotesquerie but also of recombinatory alchemy.

Jessica Wolfe, University of North Carolina at Chapel Hill
The Postnatural Logic of Giovanni Braccelli's Bizarrie
Published in Livorno in 1624, the Bizarrie di Varie Figurie of Giovanni Braccelli, a virtually unknown Florentine painter, contains twenty-four copperplate engravings, each a fantastical and ludic variation on the human form constructed from a hallucinatory variety of animate, inanimate, and mechanical components. Although neglected for centuries, it became a sensation amongst early twentieth-century Dadaists and Surrealists such as Tristan Tzara. For those few art historians who have paid any attention to it, the Bizarrie is a book truly without precedent, an artistic enigma. But as this paper will demonstrate, the 'postnatural logic' of Braccelli's art – in which human bodies are composed of sieves, machines, tennis rackets, and other insensate or inanimate objects – is rooted in three strains of late Renaissance thought: skeptical epistemology, linguistic nominalism, and a series of unpheavals in natural philosophy over the relationship between matter and form. This paper will provide an intellectual 'etiology' of the Bizarrie, ranging from nonsense poetry and cryptography to analogues in the visual arts (François Desprez' Songes Drôlatiques; Luca Cambiaso's preparatory sketches; Jacques Callot's caricatures), and then offer some theories as to why one particular strain of postnatural thinking abounds in early seventeenth-century scientific and visual culture.

Session 9 (J)
Bio/Eco/Systems
Chair: Kurt Milberger, University of Notre Dame

Francis X. Altomare, Florida Atlantic University
Steps To a Post-Ecology of Mind: Gregory Bateson, Coordination Dynamics, and the Future of Cognitive Poetics
Cognitive poetics is a nascent but increasingly important research paradigm within literary studies that strives to reconcile evidence from the cognitive sciences with literary theory and criticism; however, the role of ecology in cognition has been largely neglected by this otherwise comprehensive approach. My paper seeks to redress this gap by discussing two cognitivist frameworks that describe mind and environment as interacting, mutually dependent systems. First, I discuss Gregory Bateson's double bind theory, which posits that cognition emerges from the cybernetic interaction of mind and nature. In Steps to an Ecology of Mind, Bateson developed this notion alongside systems theory to describe attention and enculturation; yet cognitive poeticists—indeed, literary scholars in general—have tended to ignore Bateson's important anthropological work and to underplay its relevance for literary theory. Second, I examine this lacuna through developments of Bateson's ideas in complex systems theory. Specifically, I examine the role of coordination dynamics in literary studies. This paradigm

explains cognitive processes as emergent phenomena that arise from complex dynamics between complementary pairs. This research in dynamical systems following from Bateson's work provides literary studies with notions such as metastability and autopoiesis, ideas which I argue are vital for understanding literary art. Through readings of works by Samuel Beckett and Kurt Vonnegut, I argue that both Bateson's work and coordination dynamics provide cognitive models approximated by literary texts. In doing so I demonstrate that aesthetic theories and scientific hypotheses often converge in remarkably harmonious ways, suggesting a more intricate ideational cross-fertilization between the arts and sciences than is generally presumed.

Bailey Kier, University of Maryland at College Park
Sorting Through Myths of Estrogenic Ecocatastrophe: Exposing Systemic Hormonal Ecologies in a Postnatural World
This presentation with visual slides exhibits how hetero-anthropocentric reproductive assumptions have advanced a normative research and public policy agenda about endocrine disrupting chemicals (EDCs). I argue this research agenda has centered and fixated concern on the estrogenic hormonal mimicking effects of EDCs. This has significantly hindered possibilities for scientists, environmental activists, and politicians to address EDCs systemically for the multiple other interconnected systems and processes they effect such as metabolism, growth, sleep, tissue function, mood, blood sugar, and adrenal function. The lack of systemic analysis and preoccupation with estrogen has created a discourse of estrogenic reproductive ecocatastrophe concerned mostly with effects on human males and prepubescent girls, but also extended to other effected creatures believed to be essential for ecosystems that serve humans. Estrogenic transformations are deemed ecocatastrophic because it's assumed with enough exposure, EDCs may eventually lead to reproductive dead-ends. However this project argues while some EDC induced transformations are indeed environmentally problematic and toxic, they might not be preceding reproductive catastrophe and transformations might be better understood as adaptations. Additionally, scientists, environmental activists, and governments might be better equipped to deal with EDCs, their toxic effects, and biological transformation through considering how queer and transgender ecological theory might inform a more accurate, flexible, and systemic investigation of EDCs and their ecological effects.

Istvan Csicsery-ronay, DePauw University
No-Nature: The Buddha-Nature, Critical Buddhism, and the Deconstruction of Romantic Nature
Commentaries about Timothy Morton's deconstruction of the romantic and post-romantic conception of nature have revolved primarily around Morton's attempt to apply diverse ideas -- from post-structuralism, Tantric Buddhism, to Object Oriented Ontology – that share critiques of that conception. In this paper I would like to examine Morton's ideas from a perspective that has received little attention: the critique of the Buddha-Nature by the school of "Critical Buddhism" represented by the Soto Zen professor-monks Shiro Matsumoto and Noiriaki Hakamaya. This school has argued that the concept of Buddha-Nature, which is fundamental especially for Zen Buddhism, is a deviation from the teaching of emptiness by the Indian philosopher Nagarjuna, considered the originator of Mahayana Buddhism. For Matsumoto and Hakayama, Buddha-Nature is metaphor derived from the Chinese idealization of physical Nature, and violates the

fundamental teaching of emptiness. In many ways, Morton's approach echoes the views of Critical Buddhism, and may be liable to some of the same critiques.

Session 9 (K)
The Science(s) of Fluxus
Chair: Roger Rothman, Bucknell University

 Fifty years ago, in 1963, George Maciunas released his Fluxus Manifesto into the world. For him, Fluxus had the potential to "purge the world of bourgeois sickness [and] promote a revolutionary flood and tide in art." What followed Maciunas' declaration were acts of poetry, performance and object making--almost all of which aimed to integrate art into life in ways that were informed by the Dadaists and Surrealists before them. One of the most interesting ways in which Fluxus artists integrated art and life involved the incorporation of science and technology. Maciunas, for example, was deeply interested in technologies of learning, and artists like Nam June Paik and Joe Jones made work that deployed electronics and motorized components. The *Grove Encyclopedia of Art* wrongly claims that Fluxus' lifespan stretched from the early 1960s to the late 1970s. On the contrary, as the name suggests, Fluxus continues today as an open and vital force affecting flow between art and life. In addition to papers on Fluxus itself, we have included contributions that consider the influence of Fluxus on other artists who engage science and technology in their work.

James Housefield, University of California at Davis
Designing *Things of Science*: Participatory Museums and Experiments in a Box, Science Service, and Fluxus
When Paris hosted the 1937 World's Fair, a new science museum called the Palais de la Découverte offered a participatory site for multi-sensory experience in the service of education. Occupying a space where intellect met spectacle, scientists employed by the Palais presented experiments and demonstrations before public audiences in an effort to bring a love of science to the masses – especially children. The hands-on attitude of the Palais de la Découverte inspired a new age of science museums in the years to follow.
An intriguing twist on the dream of the participatory museum was launched in 1946, when Science Service began a popular series titled "Things of Science." For a modest fee, subscribers received monthly shipments of recognizable blue boxes or envelopes filled with "Things of Science." Each shipment's contents ranged from the ordinary to the extraordinary. Some packages included material samples or seeds, while others included the stuff (and instructions) to carry out scientific experiments or demonstrations. This paper analyzes the boxes of "Things of Science" and Fluxus to reveal continuities between their disparate mail-order items. While recalling the significant discussions about art and science that spurred George Brecht, Robert Watts, and others in the creation of Fluxus art, this paper especially investigates the ways they engaged the ideal of a participatory museum. This paper seeks to open conversations about the related activities of groups like E.A.T. while analyzing convergences and divergences in the

ways that Fluxus and Science Service handled questions about audience, spectacle, demonstration, and replicability.

Bradley Bailey, Saint Louis University
From Inframince to Intermedia: Duchamp, Fluxus, and the Senses
A well-known strategy of the Fluxus movement was the liberation of knowledge and experience through the stimulation of the broadest range of senses. Challenging the ocularcentrism of modernist aesthetics, Fluxus artists took advantage of the potential that the marginalized senses presented for new forms of experience in the effort to develop a fuller understanding of the body and its perception of the world around it. The multisensory experience in Fluxus was closely bound up with the related concept of intermedia, which Dick Higgins defined not only as work that falls between media, but also, as Hannah Higgins describes, "the dynamic exchange between traditionally distinct artistic and life categories." This paper will explore the relationship between the expanded perceptual field of intermedia and Marcel Duchamp's influential concept of the inframince or infrathin, a liminal state of experience that Duchamp described as impossible to define, yet characterized through a broad spectrum of sensory experience.

Jack Ox, Xavier University
Cognitive Science for a New Analysis of Fluxus Event Scores
I propose to harness cognitive science for a new analysis of Fluxus event scores: that is, conceptual metaphor theory (CMT), as first articulated by the cognitive psychologists and linguists, George Lakoff and Mark Johnson. By examining a number of event scores using image schemas, a basic structure that shapes source domains in structure-mapping metaphors, I will show how Fluxus taps into basic cognitive functions. My analysis will include scores from Brecht, Friedman, Higgins, and Schmit, etc. A discussion of how events and event scores developed, beginning with John Cage's class at the New School, will precede these analyses; I will cite Fluxus scholars and members such as Ina Blom, Dick Higgins, Hannah Higgins, Ken Friedman, Jackson Mac Low, Julia Robinson, and George Brecht.
Scores are knowledge representations that structurally order data in order to encode information that maps to performance. Events and event scores have similar attributes and functions to the concept of image schema in conceptual metaphor theory. Image schemas are dynamic patterns, often connected to objects that arise from embodied experience and play a crucial role in the emergence of meaning and the ability to engage in abstract conceptualization and reasoning. Image schemas structure source domains that map to target domains, which, in this particular case, is the performance of the event score. In fact, I will argue that image schemas are actually compact gestalt scores that function as *readymades,* and through applying them to event scores, one can achieve a better understanding of how image schemas function.

Session 10 - Saturday 4pm-5:30pm

Session 10 (A)
Postnatural Walden

Chair: Laura Walls, Notre Dame

Tom Nurmi, Elmira College
Objects of Walden
In recent years, renewed interest in materialism has energized ecological theory across a variety of disciplines. From Jane Bennett's Deleuzean elaborations on the "vitality of (non-human) bodies" to the competing visions of speculative realism and object-oriented philosophy in the work of Quentin Meillassoux, Martin Hägglund, and Graham Harman, material objects have returned to theory with a vengeance. But it is surprising that American Transcendentalist thought has not been considered in this materialist turn. Though Emerson and Thoreau are often misread as one-dimensional utopic Romantics, careful readings uncover strange anticipations of contemporary materialist philosophies. In Walden (1854), Thoreau marvels "how rapidly yet perfectly the [river bank] sand organizes itself as it flows." "The universe," he concludes, "is wider than our views of it." Here Thoreau recognizes not only the material agency of the sand but also the revelation that "our relation to the world's existence is somehow closer than the ideas of believing and knowing are made to convey." However, Thoreau's hidden material ontologies disclose a deeper paradox: why must we embrace the literary to get to the material? This essay looks at Thoreau's style – his ecological poetics – to find the beginning of an answer: a narrative ethics that registers the ironies of writing materiality. Tracking the five primary definitions of "object" – as material, purpose, obstruction, grammar, and the acted-upon – we see that the many "objects" of Walden provide a shimmering outline of how "the facts most astounding and most real are never communicated by man to man."

Daniel S. Malachuk, Western Illinois University
Farming with the Transcendentalists: A "Higher Use" Alternative to Becoming Postnatural
The Enlightenment reduced nature to our instrument, and we must return to a more sustainable relationship, or so the Romantics argued. Contemporary environmentalist theories from deep ecology forward have agreed we're alienated but effectively sanction this condition with their various ethics of non-use. This paper proposes that the drive in contemporary theory toward the "postnatural" stems partly from a habitual bias against metaphysics in modern academic work. In environmentalist theory today, the combination of an explicit imperative to differentiate between abuse and non-use of nature with a bias against relying on a "God's eye view" to do so leads theorists to a "view from nowhere" that affirms even while bemoaning our alienation. This paper considers a Romantic alternative. Endorsing this same narrative about our alienation from nature, the Transcendentalists (Emerson, Fuller, Thoreau) pursued an idiosyncratic middle course, wryly hinted at in *Walden*: "the fall from the farmer to the operative [is] as great and memorable as that from the man to the farmer." Rejecting both the operative's instrumentalism and a return to Eden's "man," the Transcendentalists ascribed to the best farmers—and other agents of conservation—the intuition of a sustainable human-nature relationship. Generally they called that intuition "higher law," and its manifestation as a conservation ethic "higher use" (especially in Thoreau's *The Maine Woods*). This paper highlights a few of the special virtues of higher use theory, including its georgic imagination, variety of conscientious practices, and nonsectarian metaphysics.

T. Hugh Crawford, Georgia Institute of Technology

On Being Alone
Philosophers often seek out Nature (capital N) as a place to write, linking the possibility of thought to solitude--time away from the hurly-burly of human sociality. Yet such writing usually invokes crowds of non-humans, both corporeal and non-corporeal. This paper explores the multiple, active nonhuman agents that help articulate and complicate a notion of "alone" or of being "all-one," by briefly discussing Emerson and Nietzsche, lingering a bit longer over Thoreau and Heidegger, and then gesturing toward Jean-Luc Nancy. There will probably be some talking about hoeing beans and chopping wood in a PostNatural Walden Woods and Black Forest.

Session 10 (B)
What is to Be Done? Contemporary Art and Sustainability
Chair: Irina Aristarkhova

In the past few years questions of sustainability and what needs to be done about "unsustainable lives" have been taken up by various constituents, including artists. Ecofeminist, anti-capitalist, and anti-colonial movements and creative works have taught us about the role of political economy in unsustainability. This panel, comprised of artists, curators and scholars who are interested in social practice and new media art, will discuss examples of art works, including their own, where these movements are present, but in new forms, arguably, in their "post-" reincarnations (postnatural, posthuman, postcritical). Here the "post" is not about overcoming or constantly reflecting back, but building on the critiques of capitalism, settler colonialism and patriarchy for the future. Artists work with farmers, environmental scientists, and evolving communities, often pondering over their own role and what "making art" means today. We want to open up a dialogue on these contested practices and corresponding shifting identities of their makers.

Contributions:
Irina Aristarkhova, University of Michigan
Michael Bianco, University of Michigan
Matthew Kenyon, University of Michigan
Osman Khan, University of Michigan
Amy Youngs, Ohio State University

Session 10 (C)
Postnatural Dance Ecologies and the (Im)materiality of the Dancing Body In Contemporary Film and Peformance
Chair: Livia Monnet

Posthumanist, postphenomenological approaches to dance philosophy and choreographic thinking have in recent years evolved into a distinct field of inquiry. The recent studies of scholars such as Brian Massumi, Erin Manning and Stamatia Portanova attest to the vitality,

depth and impetus of this rapidly evolving aesthetic discourse. Situating itself at the intersection of radical/transcendental empiricisms, and process and « new materialist » philosophies; affect theory; relativity and quantum physics; and architectural theory, our panel examines the emerging ecologies, aesthetics and practices of the postnatural (i.e.non-phenomenological) dancing body in contemporary experimental dance films and dance performance. Alanna Thain's paper teases out an ecological theory of animated dance in the experimental films of celebrated Canadian animator Norman McLaren. Nadine Boldjkovic's discussion of Wim Wenders' recent film, Pina (2011), suggests that the postnatural body in/of screen dance is a site of chance and potential sublimity. Drawing on Deleuze and Guattari's Anti-Oedipus, Laura Balladur interrogates the Argentinian tango milonga as a Body without Organs. Finally Livia Monnet elucidates the dancing body's (im)materiality and the toplogies of movement in the recent films of choreographer and visual artist Daniel Belton as a unique response to quantum field theory (QFT).

Livia Monnet, University of Montreal
« Sinews of Time : » Quantum Physics and the Postnatural Body in Daniel A. Belton's Dance Films
This presentation explores several recent dance films by award-winning New Zealand film maker, choreographer, and visual artist Daniel Alexander Belton: Line Dances (2010); Soma Songs (2005-2011); and Time Dance (2012). I argue that these films posit dance not only as a mediator between contemporary aesthetic and scientific cultures (Stephen Turk), but also as a testing out of the « experimental metaphysics » of quantum reality. Belton's films may be said to articulate fundamental notions in quantum theory – quantum entanglement, superposition, measurement, observer participancy – as emergent choreographies of the apparent materiality of massless quantum fields. His work further suggests that the dancing body is a condensate of « wave patterns of energy » -- what contemporary quantum theory describes as « (a) product of quantum fluctuations in the early universe » (Hawking and Mlodinow). Dance awakens space (Belton) not because there is a material space « out there » waiting to be observed by us, but because the universe – the empty quantum field of reality or the ongoing reconfiguring of space, time and matter of which we are a part – does not have « a unique, observer-independent history » (Hawking and Mlodinow), or an existence independent from us. The « memory of where the dance has been » (Belton) is thus reenvisioned not only as the very choreo-chronophotography of cinema, but also as the consciousness of the infinite field of potential experience of the quantum world.

Laura Balladur, Bates College
Milonga without Organs and Line of Dance in Argentine Tango
It seems to move as one, slowly at times, then rhythmically, in a round of points of life flittering about in Brownian motion counterclockwise around an invisible axis, that unseen, virtual diagram whose potential - its power of attraction, its gravitational pull - grounds all material bodies in a cyclical revolution, like the revolutions of planets around a sun. But these are not planets around a sun. These are dancing bodies, dancing partners at the Argentine tango milonga, moving counterclockwise around the line of dance. Not only do they spin around this axis, but between each partner as well a strange attraction and resistance, a similar virtual diagram vectors forces towards and away from each dancer. Beyond the smooth space of the dance floor, another

strange pairing of attraction and resistance: couples on the dance floor and expectant dancers gathered around, waiting out the tanda or set of tango songs, watching, while the music as well falls into a cyclical pattern of renewal and reinvention. Drawing mostly from Deleuze and Guattari's Anti-Oedipus, I frame the milonga from within the concept of Body without Organs: what is the set of practices that gives rise to the milonga? What is this strange body of the milonga, what is this organism, these different parts acting independently of one another, yet depending on each other and moving as one? When stripped of the fantasy and performance called tango, what diagram, what potential remains when dancers have left the milonga?

Allana Thain, McGill University
What is Really Abstract: Norman McLaren's Anarchival Experiments
The work of Canadian animator Norman McLaren has long suffered from a critical neglect that doesn't measure up to his continuing stature and influence in cinema, animation and live art practice. One reason for this is the contention that McLaren, a "company man" at the National Film Board of Canada for almost the entirety of his career, could never quite let go of a figurative impulse in his work: not abstract enough. Throughout McLaren's famously inventive career, he returned repeatedly to an interest in bodies in motion—human and animal—which seemed to help ground his wildly experimental and frequently abstract style. However, such an approach overlooks McLaren's ecological approach to his art practice, where his artisanal approach to experimenting with, exploiting and inventing a vast host of animatorly techniques— from pixilation to some of the earliest experiments in 3-D to direct sound—was not a support for the figurative images he wanted to explore, but fully part of them. In this way, McLaren's ecological approach to medium was drawn directly from one of his lifelong passions and a frequent subject of his work—dance—where the dancing body is both archive (of training, technique and repertory) and anarchive (generative in nature). This paper will look at McLaren's experimental techniques across several films to develop an ecological theory of animated dance, as well as consider the recent intermedial live dance homage to McLaren, Norman 4-D (2006).

Nadine Boljkovac, Independent Scholar
"Flashes of Life:" Love and Chance through Wenders' *Pina*
In What is Philosophy?, Deleuze and Guattari evoke a something in life that is too much for anyone but that yet is "also the … breath that supports [artist-philosophers] through … illnesses of the lived." If suffering and sight might be perceived a nonhuman becoming, a force that may forge life through art in the face of pain, this working-through of Wender's 2011 Pina explores how the film's variations, transitions, passages and durations are experienced between actualised states and affecting bodies. As it examines how 'we' are drawn 'into the compound,' this paper considers affective encounters that exist not only between, within and across the bodies that dance, leap and fall across the screen – a screen yearning for a greater dimensionality – but it also discerns a moving encounter that emerges between screen and spectator. Through piercing flashes and corporeal traces, Pina exceeds commemoration for late visionary choreographer Pina Bausch. As it confides in its viewer in an embrace that surpasses limits of cinematic screen and self, Pina reveals and embodies an event: 'the constantly renewed suffering of men and women … their constantly renewed struggle' (WIP). Responsive to these 'flashes of life,' via thoughts through Deleuze (and Guattari), Lyotard and others, this paper proposes the body as an instance

and site of chance and potential sublimity, and at once also dying, aging, and survival. At last these embraces demand a thinking-through of 'feeling' or 'love.'

Session 10 (D)
Book Panel
N. Katherine Hayles's *How we Think: Digital Media and Contemporary Technogenesis* (Chicago UP, 2012)

Katherine Hayles, Duke University
Rebekah Sheldon, Indiana University-Purdue University at Indianapolis
Jenell Johnson, University of Wisconsin at Madison
Jamie Skye Bianco, New York University

Session 10 (E)
Catherine Belling's *A Condition of Doubt: The Meanings of Hypochondria* (Oxford UP 2012)
Catherine Belling
Terri Kapsalis
Judy Segal
Lisa Diedrich

Session 10 (F)
Postnatural Speculation: Indeterminate Epistemologies, Code, and Computation
Chair: Matthew Wilkens, University of Notre Dame

This panel is concerned with indeterminate epistemologies in relation to theoretical speculation, data extraction, cybersecurity, and the co-production of texts between author and device. Through literature, film, procedural poetics, and the speculative epistemic politics of particle physics, the panelists are involved in a multitude of critical close readings with objects that bear little superficial resemblances, but are, at the core, preoccupied with speculations on the postnatural. This includes meditations on the tensions between life and non-life, the natural and the artificial, the known and the unknown. The forms of knowledge we take up are always already mediated and at the point of becoming: the informational bits and data constructs of interest to this panel, then, do not have an obvious genealogy. However, what unites our approaches is our concern for speculative epistemologies. How can we know the unknowable, the indeterminate, the soon-to-come, and the not-yet?

Cynthia Current, University of North Carolina at Chapel Hill

Data Extraction and Hidden States in Jennifer Egan's "Black Box."
Jennifer Egan's "Black Box," published serially by The New Yorker on Twitter, and then as a short story and e-book in 2012, is the futuristic mission log of a "Beauty," a bio-technologically enhanced spy who works for the United States and whose mission is both to extract data from Targets and to become data herself. In this presentation, I argue that the story's Twitter-ready format and aphoristic lyricism conceptualize data extraction through the literal and metaphorical use of black boxes and Hidden Markoff models to reveal hidden states. Such hidden states work metaphorically in the story—with the conceptualization of beauty and the "new heroism" as a black box, an object and device where the input, output, and transfer of information is more important than knowledge concerning the "box" itself—and directly as a plot point where the "quantity of information captured [by the Beauty] will require an enormous amount of manpower to tease apart" and reveal the hidden state of the Target. The structure of the story, along with its publishing history, compellingly combines the effects of extra-textuality and new media, data surge and affect, and bioenhancement to define the "new heroism" where "the goal is to renounce the American fixation with being seen and recognized," where "[your] job is to be forgotten yet still present."

Clara Van Zanten Boyle, Luther College
How Writing Is Written: DIASTEX5 and the Xenotext
"How Writing Is Written" (a title borrowed from Gertrude Stein) examines the relationship between the poet, or programmer, and the device (the algorithm, the machine, the organism) that writes the poem. A study of process, it considers various procedures as examples of co-processing or co-production: transcription (Kenneth Goldsmith), algorithm (Harry Mathews), and writing-through (Jackson Mac Low). It then turns to two exemplary programs: Charles Hartman's DIASTEX5 and Christian Bök's Xenotext Experiment. DIASTEX5, a computer program, automates one of Mac Low's diastic writing-through text-selection methods. The Xenotext, a sequence of DNA, codes for a poem that, when introduced into a bacterium, prompts that bacterium to write a poem (a protein) in response. The Xenotext is a work designed to outlive or out-write not only the poet, but the world as we know it. In both cases, the poet writes the program, and the program writes the poem (indefinitely)—the poet is displaced as the sole author of the work. "How Writing Is Written" reads co-processing or co-production as 'post-natural' authorship. The poems written by DIASTEX5 and the Xenotext do not grow, develop, and flower in the manner of lyric poetry. The poet in the garden gives way to the technician in the lab—or even to the lab equipment. The device (program, organism) is prosthetic. Yet DIASTEX5 relies on natural numbers (the Lucas Sequence), and the Xenotext, on the behavior of a bacterium. "How Writing Is Written" argues that we should understand these as post-natural processes—processes for the end of the (natural) world.

Clarissa Ai Ling Lee, Duke University
MC Higgs: Code Life, Physical Algorithms, and Channels of Epistemes
My paper will explore how speculative epistemic politics are involved in the design and planning of high-stakes experiments in particle physics, its connection to Monte Carlo (MC) simulations in terms of the decision-making involved in the construction of constraints and parameters for testing a specific theory or hypothesis (or to confirm and extend existing models), and the mathematical algorithmic embodiment of physical events to be visualized and realized.

Speculative epistemology here represents knowledge that began life as a hypothesis that is then developed into a theory that never quite attained absolute confirmation, yet remains alive because of predictions regarding its potential to deliver. In other words, speculative epistemology is causally indeterminate but embodies almost convincing and plausible explanatory theories, with narrated actors and plots, that merely needed a breakthrough to proceed, with the breakthrough appearing either as a paradigmatic or ontological shift, with solutions that can explain away paradoxes. In light of the above, I will be performing a critical close reading of a selection of code from an MC event generator with the intention of teasing out concepts of realism and materiality that are embedded into the design of the narrative in computational code. The narratives are derived from the different 'channels' (or approaches) used in studying the Higgs boson that is supposed to supply resolutions to questions relating to the Standard Model of particle physics. This model is constitutive of all the known fundamental elements in our universe, as well as the forces holding them together.

Lindsay Thomas, University of California at Santa Barbara
The Coming "Cybarmageddon:" Cybersecurity, Data, and Preparedness
This paper examines the place and function of "data" in various governmental and fictional discourses on cybersecurity, including the Department of Homeland Security's (DHS) Cyber Storm training exercises, recent federal cybersecurity legislation, and Richard A. Clarke's popular "cyber-thriller" Breakpoint (2007). I examine these discourses in relation to preparedness, the dominant national security paradigm of the United States today. Preparedness concerns how to prepare for and respond to unpredictable catastrophic threats, typically employing speculative forms of knowledge production to simulate future global emergencies. Here, I emphasize the historical and conceptual importance of cybersecurity to this security paradigm. Cybersecurity, concerned with always-yet-to-occur cyberterrorist attacks, understands data – from counterintelligence on alleged cyberterrorists to information on the resiliency of critical infrastructures – not as that which results from the empirical measurement of an event but rather as that which acts as a measurement of a future event that has not yet occurred. Importantly, this future event (i.e., "cybarmageddon") is certain to occur and cannot be prevented, so we can only prepare for its arrival. In other words, for these speculative discourses, "data" is not as an index of empirical reality or way to predict the contours of such reality; instead, "data" is used as a way for these discourses to ground their authority to depict and enact possible futures. Thus, I argue for an understanding of data rooted not in empirical measurement, but in speculation and possibility, and for the centrality of this understanding of data to preparedness as a whole.

Session 10 (G)
Metaphors of Climate Change (Roundtable)
Chair: Everett Hamner

In *Eaarth* (2010), Bill McKibben writes, "We have traveled to a new planet, propelled on a burst of carbon dioxide. That new planet, as is often the case in science fiction, looks more or less like our own but clearly isn't. I know that I'm repeating myself. I'm repeating myself on purpose.

This is the biggest thing that's ever happened" (45-46). This roundtable repeats (and hopefully expands upon) conversations about climate change ecocriticisms and the Anthropocene begun at ASLE 2013. While not the biggest thing that ever happened, it does bring together a wide array of scholars of literature, rhetoric, science studies, and religious studies. We will consider the following questions in five-minute presentations, all of which aim to cultivate a more extensive audience discussion about our increasingly alien planet: ~What patterns do we see in literary and other cultural representations of climate change and of those it has impacted most forcefully? ~How does—and how might—literature and other art contribute to our understandings of climate change and its public understanding? ~Have particular metaphors, rhetorical forms, and literary genres (e.g. the science fiction McKibben mentions) played distinctive roles in addressing climate change and/or influencing public attitudes and political will? ~In what ways can scholars across the humanities and sciences more effectively engage the language and themes most commonly repeated in discussions of climate change?

Presentations by:

Everett Hamner, Western Illinois University
Nancy Menning, Ithaca College
Sara Crosby, Ohio State University at Marion
Barbara Eckstein, University of Iowa
Gerry Canavan, Marquette University

Session 10 (H)
reconfiguring sensation: sensory prostheses and the postnatural sensorium 3. substitutions.
Chair: Mark Paterson, University of Pittsburgh

'Reconfiguring sensation' considers how the sensate body has been co-constituted and reimagined through a combination of 'hard' technologies (hardware, interfaces), soft technologies (disciplinary apparatus or sensorial regimes), and more generally how scientific discoveries concerning the senses and new modes of somatic address have arisen since the original 'turn' to embodiment in the 1990s. We seek cross-disciplinary discussions of interfaces, artworks, and more generally 'aesthetic' encounters that problematize ideas of the sense 'modalities' as such. We therefore encourage examples, displays and 'walkthroughs' of such work. The panel considers issues such as: - how are sensory prostheses and technologies of sensory substitution (e.g. TVSS) reconfiguring the sensorium? - what can art-science collaborations, including digital installations, teach us about rewiring the senses or expanding our modalities? - what are the implications for the public understanding of cognition, perception, and sensation? - given the availability of biometric data collection for everyday exercise (e.g. FitBit, Nike+), what are the implications for somatosensation and our somatic imaginary? - what is 'natural' about our sense modalities anyway? - how have the senses been historically mediated through technologies that help us map our neurophysiological understanding of the body? - what effective aesthetic examples are there of mashups, remixes, reconfigurations, of senses and affects? - for those with sensory disability or impairment, how can technologies of sensory

prosthesis make aesthetic experience available? - what happens 'after' touchscreens? how do other aspects of the body become implicated or addressed in the human-computer interface (HCI)?

Patricia Olynyk, Washington University at St. Louis
Challenging Ocularcentrism: New Adventures in Mediated Sensoria
At present, there is a growing interest in scientific visualization particularly within the community of artists engaging digital media. Scientific images provide the unique opportunity to reinterpret and represent visual data within the broader cultural context and further engage other disciplines outside the scientific arena. Images from science can also be interpreted through non-visual means to create new forms and representations which heighten sensate experience and ultimately expand and challenge occularcentric tendencies, calling on viewers to expand their awareness of the worlds they inhabit, whether those worlds are their own bodies or the spaces that surround them. This presentation will focus on three art projects, each of which involves collaborations with scientists, technologists, architects and sound designers. The first explores cenesthesia, the relationship between consciousness and sensation through a multi-media site-specific work that privileges the conceptual and physical contingencies of its location; the second investigates the relative scale of the universe and complex patterns of formation within it which reveal a multitude of hidden codes; and the third sonically articulates the ambiguous space between micro and macro environments through the use of spatialized sound.

Florence Chiew, University of New South Wales
Sensory substitution: The problem of locating the eye/'I'
Recent findings of cross-modal plasticity in the area of sensory substitution research indicate that neither the identity nor location of a sensory modality is straightforward. For instance, a number of neuroimaging and psychophysical experiments have shown that in the absence of sight, the modalities of touch and hearing can be effectively rerouted to 'see'. In other words, cross-modal plasticity in sensory substitution evokes a systemic understanding of perceptual experience that cannot be based in an aggregation or assemblage of otherwise disparate, atomic modalities. This paper is a meditation on the puzzle of locating the visual apparatus, or indeed, of any sensory modality taken singly. In this confounding origin of perceptual experience, the question of what constitutes deficiency is also put at stake. Against the grain of traditional views of neurological matter as fixed essence, the phenomenon of sensory substitution suggests that the characteristics of change, invention and creativity already inhere within biological matter.

Matthew Schilleman, Clemson University
Helen Keller and the New Sensorium of Touch-Typing
I argue that Helen Keller's life and work represents the formation of a new system of mental production circa 1900 linking bodies, machines, and minds together in historically unique configurations that would define the modern subject. Struck deaf and blind at 19 months, Keller was unable to acquire language through the usual sensory conduits. Rather, her first words came to her through a system of writing called "finger-spelling" in which signs were tapped onto her body. This inverts the "natural" order of speech and writing for Keller, a process that crystallizes around her adoption of the typewriter as a tool for literary composition. Originally designed for the deaf and blind, by unlinking the hand from the eye, and thus allowing those that cannot see to

write, the new medium reifies Keller's sensory condition into a material and technological one of writing. Keller's work with the typewriter thus heralds a major shift in the relationship between psyche and text. No longer the natural extension of authors' voices, writing becomes something inhuman, mechanical, and fragmentary. Two major scenes of writing from Keller's life help to illustrate this transformation. The first is the plagiarism controversy that surrounds her story, "The Frost Fairies," composed when she was eleven, and the second is the creation of her autobiography, The Story of My Life. Taken together, these scenes point to a reconfiguration of mind, body, and page that typewriting historically produces on a larger scale once it becomes a standard tool of composition.

Session 10 (I)
Technology & Corporeality
Chair: Ian Newman, University of Notre Dame

Harley Goldsmith, Souther Methodist University
Does Crusoe Shit in the Woods?: Waste, Production, and Fantasies of Origin in Robinson's Island Kingdom
"Waste," Dominique Laporte writes, is both "the inevitable by-product of cleanliness, order, and beauty"—the Freudian triad that defines 'civilization'—and "that which falls out of production [and which] must also be put to use" (*History of Shit*). Laporte further argues that "that which is expelled inevitably returns… Once eliminated, waste is reinscribed in the cycle of production as gold." There is gold on Crusoe's island, though it sits unused, and there are cycles of production, but waste—and, in particular, shit—is absent. Of course, shit as a quotidian bodily function is generally absent from popular narratives, and shit in *Robinson Crusoe* would be just such a quotidian issue. But this is precisely why its absence is conspicuous: *Robinson Crusoe* is a novel obsessed with quotidian reality, with lists and inventories and detailed accounts of the daily life of its narrator-protagonist. Why is there no description of Crusoe's waste-elimination system? Does he shit in the woods—in the uncultivated parts of the island—and what would it mean if he did? *Robinson Crusoe* is, among other things, a parable/fantasy about the origins of the State and the emergence of "civilization" from "nature"; indeed, Crusoe initially finds himself in a "meer State of Nature" on the island, but, nearly three decades later, leaves behind a fledgling colony that thrives in his absence. This paper examines the interrelation of the island's (fantastic) unbounded fertility, the conspicuously waste-less cycles of production Crusoe establishes and participates in, and the divisions of space and function Crusoe imposes—and the impact of those issues on the novel's political agenda.

Aaron Ottinger, University of Washington
Shaping Time Without Hands: Geometrical Instruments and Wordsworth
At the end of the seventeenth century, Sir Isaac Newton affirms mechanical instruments as permissible and liberating for the modern geometer. As David Lachterman points out in his brilliant study, The Ethics of Geometry, for Newton and Descartes before him, mechanical innovations would come to bear "endless inventiveness." Yet romantic figures like William Wordsworth fear that tools will replace the mediating function of the hand. In The Excursion

(1814), Wordsworth describes a disjunction between the hand and the affections following from the interposition of tools. With this disconnection, an affective imagination would seem to go unchecked. In fact, the tools for textile production that Wordsworth depicts, discipline the body's movements and the mind's operations, so that the imagination now constructs figures according to arithmetical patterns. In other words, Wordsworth identifies what today we might call the emergence of an algorithmic imagination. Consequently, the tool determines temporal succession according to a geometrical model, i.e. the timeline. E.P. Thompson would agree that during the time period in which Wordsworth writes we see a shift away from "natural" rhythms of "task-orientation." While Thompson and others point to capitalism as the source of this shift towards "timed labour," the geometrical underpinnings that allow for the new division of labor and circulation of revenue are often neglected. In order to construct an image of the market that indicates infinite growth, we must first grant the permissibility of the tools for such a construction.

Sarah Parker, Jacksonville University
The Natural Philosopher and Her Environment in Margaret Cavendish's *The Blazing World*
The seventeenth century was marked by the development of Baconian scientific method and the foundation of the Royal Society, in which concern with the natural world went hand-in-hand with the possibility of developing knowledge about that environment. Margaret Cavendish's strange and wonderful prose work, *The Description of a New World Called the Blazing World*, takes up this concern for developing a scientific understanding of the material world. Often hailed as a foundational moment in the genre of science fiction, its contemporary readers would have recognized The Blazing World as a utopia along the lines of the work of Thomas More and especially the more scientifically minded Frances Bacon. Cavendish departs from her literary predecessors in important ways, though. Rather than following the Baconian example of a scientific utopia in which the observer remarks on his surroundings without directly engaging in them, Cavendish's narrator and the people in her utopia engage directly in the practice of scientific method, while also insisting on a more immediate, embedded relationship between the observer and her world. Cavendish's utopia moves beyond the binaries of human observer and natural world, enacting a mode of scientific inquiry that becomes a complex intermeshing of perceiver and environment. This paper argues that Cavendish uses an embedded representational strategy linking humans and environment in order to question the ideal of objective scientific observation that her contemporaries in the Royal Society found so attractive.

Session 10 (J)
Horror
Chair: Erik Larsen, Notre Dame

Andrew Pilsch, Arizona State University
"I am afraid of a draught of cool air": Lovecraft, Air Conditioning, and Autophagic Modernity

In this paper, I use H.P. Lovecraft's 1926 story about air conditioning and its abilities to unnaturally extend the life of a mad scientist as a conceptual image giving access to what I call "autophagic modernity." In Lovecraft's story, the character of Dr. Muñoz uses an early ammonia-based, gasoline-powered absorption refrigerator to prevent the rapid decay of his long-dead and chemically preserved body. When he runs out of ammonia in the middle of the night, his neighbor discovers all that remains of him: a puddle of ooze. In this paper, I use this plot as a microcosmic focus on our unsustainable relationship with cooling. Americans, who use more electricity on air conditioning than the continent of Africa uses for all purposes, are in an analogous position: sustained by coolant and petroleum while stocks of these chemicals are rapidly depleting. This condition of general collapse is, I argue, indicative of the essential character of our cultural moment: what I label as autophagic modernity. In this era, the technologies that make modernity possible---technologies such as fossil fuels, antibiotics, and factory farming---are beginning to break down in a way that specifically consumes modernity's users. By introducing this concept through Lovecraft, I conclude by highlighting that the majority of his fiction can, in fact, be read, like "Cool Air," as anticipating this current crisis.

Marcel O'Gorman, University of Waterloo
Object-Oriented Ontology as a Philosophy of Horror
Object-Oriented Ontology as a Horror Philosophy Marcel O'Gorman University of Waterloo Critical Media Lab This presentation begins with an examination of two high-definition horror movies (although the artists might resist this categorization): Rioji Ikeda's Datamatics v2.0 and Herman Kolgen's, Dust. Ikeda's computer-generated piece presents a vast cosmos that is completely free of human agency, a digital world in which the "post" of posthumanism denotes temporality, the after-human. Dust, on the other hand, presents a world of inorganic micro-agents, rendering visible and agential a tiny cosmos that is otherwise absent to human perception. While these videos were recently presented at the Perimetre Institute for Theoretical Physics as a means of provoking ecstatic awe at the wonders of the universe, my argument is that they might equally provoke horror, given their potential to unseat the ontological integrity of the human species. Both of these videos—one telescopic and the other microscopic—gesture toward the infinite, and achieve what Jane Bennett or Levi Bryant might call a horizontalizing effect that unseats and unsettles anthropocentric notions of being. Like object-oriented philosophers, Ryoji and Ikeda revel in awe at the infinite while simultaneously fantasizing about the extinction of the human species. The ultimate end of this discussion is to explore the relationship between terror, horror and Object-Oriented Ontology, en route to identifying not a "horror of philosophy," but an ethically suspect "philosophy of horror" that characterizes the work of Graham Harman, Ian Bogost, and especially Eugene Thacker.

Anthony Camara, University of California at Los Angeles
The Higher Dimensions of Cosmic Horror, or Nature Warped by Outer Spaces: Algernon Blackwood's "The Willows"
Here I examine Algernon Blackwood's short story, "The Willows" (1907), in order to make a case for why contemporary ecocriticism should see to it that his weird horror fiction no longer languishes in obscurity. Unlike most supernatural horror, which transpires in the traditional Gothic setting of the rotting ancestral manor, "The Willows" takes place outdoors, suggesting that nature itself is haunted. The tale, however, is not a ghost story but a quintessentially weird

blend of science fiction and horror. Its departure from conventional supernaturalism is evident in its extra-dimensional alien menaces, which register their presences obliquely through terrifying effects on the ecosystem. I trace this multi-dimensional innovation to developments in mathematics by Charles Howard Hinton, whose book *The Fourth Dimension*(1904) was among Blackwood's favorites. Following Hinton's research, "The Willows" imagines nature enveloped and pervaded by unnaturally-dimensioned spaces and life-forms. Rather than propose that nature is natural, supernatural, or synthetic thereof, I contend that the bewildering spatial anomalies of "The Willows" reflect the finitude of human thought as it attempts to comprehend an infinite nature. Blackwood, therefore, teaches us that to be "postnatural" inheres less in devising ontological or metaphysical replacements for nature than in relinquishing the idea that we enjoy full, unproblematic access to it. My arguments demonstrate that weird cosmic horror approaches space and nature with mathematical and philosophical sophistication, treating them as concepts for speculative investigation rather than just plot devices for spawning a nebulous and tentacled bestiary.

Session 10 (K)
Monstrosity
Chair: Yasmin Solomonescu, University of Notre Dame

Beatrice Marovich, Drew University
Female Philosophers, *Frankenstein* & the Complexity of Creaturely Life
The "theological relic" of creaturely life—with genealogical roots in a monotheistic cosmology—may not appear, at first glance, a useful construct for thinking through the complex entanglement of earth-bound forms of life. Far from "postnatural", creaturely life seems marked and stained by pre-modern supernaturalisms and the imperial political theology of sovereign power. The creaturely might simply be a name for the abject state of dependence on sovereign power—a posture of mechanical obedience. This might be, for instance, a reading of the creaturely life that we find in accounts such as Eric Santner's *On Creaturely Life* (University of Chicago Press, 2006). In this paper, however, I will bring to light another exegetical strategy for reading creaturely life: as a complex blend of vulnerable dependence and powerful capacity that charges human and non-human connections. This speculative articulation is not new. In this paper, I will tie this exegesis of creaturely life to the work of seventeenth century philosopher Anne Conway, the work of eighteenth century philosopher Mary Wollstonecraft (specifically, her *Vindication of the Rights of Women*), as well as the novel *Frankenstein* by Wollstonecraft's daughter, Mary Shelley. I will suggest that while this reading of creaturely life is not *new*, what is still *novel* about this speculative strategy is that it works against the grain of orthodox doctrine—both its ontological constraints and its discourses of power. More, I will suggest that elements of this complex creaturely connectivity may be relevant to biopolitical conversations in "postnatural" context today.

Helena Feder, East Carolina University
Desiring the Postnatural: Piltdown, Wells, and the Missing Link

This talk will focus on Wells' neglected novella, The Croquet Player, particularly on the desire for and fear of "missing links," which overlaps with various humanist discourses about violence, sexuality, and animality in the Island of Doctor Moreau. The paper will consider this aspect of the text in the context of various correspondence with Charles Darwin, Ota Benga in America (his display at the Louisiana Purchase Exposition and, later, in the "human zoo" exhibit in the Monkey House at the Bronx Zoo), the "discovery" of Eoanthropus dawsoni (the Piltdown Man) and, of course, the rise of violence in Europe in the late 1930s.

Kaitlin Gowan Southerly, Arizona State University
Being a Monster: A PostNatural Critique of Shelley's Failure to Acknowledge the Creature's Umwelt in*Frankenstein*
Mary Shelley's *Frankenstein* might appear as an obvious choice for a discussion of a postnatural being, with a scientist who defies nature in order to successfully produce a non-natural, a postnatural creature. Yet, much of Shelley's critique in the novel is centered on the way in which the monster is alienated or othered by society as a result of Victor Frankenstein's inability to cope with the power and knowledge obtained. Such critiques, although useful, still fail to breakdown any form of anthropocentrism as they consistently fall back on Victor and his own failings as seen through the creature. Mary Shelley, in complete anthropocentric fashion, fails to recognize how the creature, a nonhuman, postnatural creature, would occupy and exist in his own, unique *umwelt*; in total opposition, Shelley disavows his being-in-the-world and forces him into a life of isolation and alienation. For a truly postnatural critique, this argument will attempt to breakdown the ever present anthropocentrism in the novel and focus on the creature, not for the sake of critiquing Victor, but rather for a better understanding of how the creature functions as his own, separate, postnatural being. Assisted by von Uexküll's theory of*umwelt*, this paper will examine the function of language and the body in *Frankenstein* showing how the creature is forced to the periphery of society, occupying the space of the idiot as he functions as a cipher for humanity, yet at the same time denied an acknowledgement of his own postnatural being.

Jenni Halpin, Savannah State University
Zombies Moving Posthumanity
In Mira Grant's Newsflesh novels the SF novum is an unanticipated hybridization between a virus meant to cure cancer and another meant to eliminate the common cold, making the dead rise. The immediate governmental response to the zombie rising was an information lockdown; one CDC scientist went rogue, posting everything he knew on his daughter's blog. As a result, blogs established a position as an important news venue just as people began to erect radical barricades to their own circulation, both in an effort to keep the zombies at bay.
As the population increasingly locks itself in, a presidential campaign's flesh-pressing events are startlingly dangerous for everybody involved. As with any home, blood tests are required for admission, providing evidence that each person is free from the zombie virus. While the candidate's cross-country caravan moves the campaign from city to city, and in part because of the inherent danger, its bloggers are able to drive traffic to their site.
I will argue that the confluence of these changes to life as we know it hybridize bodily and informational movement, creating a new thing as strange and full of potential as the zombie virus that started it all. This new hybrid muddies the grounds of posthumanity, avoiding the

singularity, cyborg, and virtual reality contexts in which humanity and information generally join; in so doing it offers an expression of posthuman being that is itself as viral as the zombie plague.

6 p.m.—7:30 p.m. **Keynote: Timothy Morton, "Weird Essentialism"** in McKenna Hall Auditorium

Timothy Morton is Professor and Rita Shea Guffy Chair in English at Rice University, author most recently of *Hyperobjects: Philosophy and Ecology after the End of the World* (2013); *The Ecological Thought* (2010); and *Ecology without Nature: Rethinking Environmental Aesthetics* (2007). His earlier work also includes *The Poetics of Spice: Romantic Consumerism and the Exotic* (2010); *Cultures of Taste/Theories of Appetite: Eating Romanticism* (2004); *Radical Food: The Culture and Politics of Eating and Drinking, 1790-1820* (3 volumes, 2000); and *Shelley and the Revolution in Taste: The Body and the Natural World* (1995).

8:30-11 p.m. **Reception and Dance**, Morris Inn Ballroom

Session 11 - Sunday 9:30am -11:00am

Session 11 (A)
Rethinking Ahab: from will to system
Chair: Jonathan Schroeder

Melville's Captain Ahab is generally viewed as the very paradigm of a strong, controlling agent: a man who "transmutes his world — men, ocean, and whales — into his monomaniacal projects and ends by killing his crew, save one." But monomania is a nervous disorder. And in the moments that Ahab is allegedly most controlling he's surrounded by icons of electromagnetic force. This panel will begin to chip away at Ahab's Cold War legacy. But we plan to do more than simply critique a model that's been dominant since the publication of *The American Renaissance Reconsidered* in 1985. Instead, each panelist will offer a way of "Thinking With Melville," or treating Melville as a thinker not of but *for* our moment. Melville views nature as neither living nor inorganic -- but as systematic. And Melville's human bodies, instead of holding "life," seem to be hybrids that are perpetually reconstituted. Jonathan Schroeder will discuss the implications of Ahab's monomania -- along with diagnostic implications of his "weakness of the will." Erik Larsen will discuss Ahab's "soma," or his response to his ambiguous, hybrid life as both "dead" bone and "living" matter. And Meredith Farmer will consider the "subtle agencies" that "wrought on Ahab's texture," or Melville's preoccupation with bodies that are compelled by their electromagnetic atmospheres. What will ultimately

emerge is a Melville who resists "purification" between two allegedly oppositional spheres: self-organizing organisms and inorganic bodies.

Jonathan Schroeder, University of Chicago
The Weakness of the Whale: Captain Ahab and Monomania
This paper argues that Captain Ahab's monomania rings with significance today for the history of medicine, literary history, and philosophy. In foregrounding Ahab's "narrow-flowing monomania," I bring together a set of questions that have been disciplinarily dispersed but are knit together in this novel. In the process, I construct a new image of Ahab as a weak agent dominated by fixated desire. When Lauren Berlant and Donald Davidson ask why someone would perform an action when they know that another action would be better, we can turn to the "Ahab moment" for answers. Moby Dick belongs to the first-wave of texts that imported psychiatric ideas from France into America. My work is invested in this transformative encounter between concepts pertaining to the "weakness of the will" and American literature. I argue that Ahab requires us to understand monomania not simply as a medical diagnosis pertaining exclusively to the subject (a person who privileges one relationship over all others). Rather, the novel uses medical diagnosis to pose an ethical and historical question about what kinds of analysis are required to invent a sustainable mode of relating to the environment. This broadening of medical diagnosis to include an historical component I take to be the philosophical importance of Melville's epic – provided that we see this historicism not as drawing a sharp distinction between humans and nature, but as a medico-environmental historicism that diagnoses how humans become attached to harmful desires and how they might learn to lose them.

Erik Larsen, University of Notre Dame
Systems without Bodies: Ahab's "Non-Organic" Vitality
Ian Hamilton Grant in his Philosophies of Nature after Schelling, claims that Kant's transcendental philosophy relies on an assumed division of matter into essentially opposing spheres: "material nature is divided between those phenomenal bodies that we cannot but think as self-organizing and those we can only think as inorganic, mechanical bodies" (71). While it is frequently viewed as the apotheosis of Romantic speculative organicism, Schelling's Naturphilosophie frequently breaks with Kant's attempt to divide nature in this fashion. This is perhaps what the term nature, as opposed to "life" helps to perform in this intellectual moment; it includes the "organic" and the "inorganic" in a common tendency to produce changing systems—systems which are never "complete" in the sense often attributed to organic holism. The primary purpose of this presentation will be to explore the resonance of this new sense of nature with experiments in literary production, and primarily Melville's Moby-Dick. Here I will focus specifically on how the novel's challenging of the very concept of bodies produces a sense of nature as neither living nor inorganic, but as fundamentally systematic—although without a pre-existing super-sensuous model for its systematicity. The analysis of Moby- Dick will explore these reflections through close investigation of Ahab's response to his own ambiguous bodily life; the Captain's body is, after all, not only a strange hybrid of whale and man, but more importantly of "dead" bone and "living" matter.

Meredith Farmer, University of North Carolina at Chapel Hill

Subtle agencies wrought on Ahab's texture?
On the third and final day of his epic chase, Melville's Captain Ahab makes an unexpected declaration: "Would now the wind but had a body; but all the things that most exasperate and outrage mortal man, all these things are bodiless, but only bodiless as objects, not as agents." This raises a fascinating question: what does it mean, for Melville, to be an agent with no body? For years wind has been imagined as pneuma: spirit, soul, and the breath of the ungraspable phantom of life. But in the wake of Lavoisier and Priestley, both air and wind become material. And this materialized "spirit" seems to drive Melville's characters. For example, Ahab has a "leak" but won't even try to find it "in this life's howling gale." Instead "subtle agencies" related to the weather "wrought on Ahab's texture." I hope to use this panel to share an argument I've been developing: that Melville portrays material bodies as systems that can be overtaken by their environments. In fact, they are collections of invisible agencies, which are always in flux: constantly and chemically reassembled -- and unified only in terms of skins, jackets, names, and legal mandates. Here Melville's "bodiless agents" are material even though they don't register as "objects." Instead they are simply too "subtle" to be sensed. Like the "Leyden jar of his own magnetic life, Ahab seems to be a structure that stores and then distributes charge.

Session 11 (B)
Visualizing Postnatural Ecologies
Chair: Mae Kilker, University of Notre Dame

Adam Zaretsky, ITP-New York University & Praba Pilar, University of Winnepeg
Say Yes! : *The Art of Sex, Blood and Politics in IGM (Intentional Genetic Modification of the Human Genome)*
1: Queering Transgenic Human Anatomy: Biotechnological alteration of the human genome is referred to this decade as IGM or the Intentional Genetic Modification of the Human Genome. Hereditary gene collage makes new breeds from desires. These organisms are not on canvas or chiseled out from marble, transgenic organisms are sculpted from molecular collage, novel entities. Transhumanist style tends towards naïve optimism based on futurist potentials, emphasizing: longer life span, more beauty and bigger brains. What is the full range of forms and beings we could force evolve ourselves into? Where can fringe anatomical and metabolic goals take us... beyond enhancement? 2: Who is fit to play with doctors? Artists that work with actual Sex, Blood and Politics should be given some preference in any wet IGM bioart production. A: Erotic artists are primed to interface with new reproductive technologies. B: Radical body modification and endurance Performance artists enhance adult, informed human-subject consent to approach human experimentation without usury. C: Political Artists & Bio-power Critics who foment resistance to technoslavery, war mongering and neocolonialist greed can best advise on how pre-Personal Genomics might patch up of any and all Social Dis-ease or power-deformity Artists of Sex, Blood and Politics, Say Yes! to the fracking of heritage genomes through mutagenesis as an art.

Eivind Røssaak, University of Chicago
Life After Nature: The Erkki Kurenniemi Archive

"Man is a machine. A machine produced by evolution. I find it impossible to think that for mere nostalgic reasons, such a slime-based system would be preserved," the Finnish artist engineer Erkki Kurenniemi writes in his manifesto for a future archive, which should create the foundation for human life outside earth and "after Nature." In the years 1960 – 2005 Kurenniemi attempted to archive his own life through connecting it to a plethora of media devices. He used non-biological external storage media to preserve his own life, and he dreamed of the day when these media would become ubiquitous and so flexible as to replace biological life altogether. He wanted to extrapolate a "systematic model for a template of all human life." He relied on future quantum computers to make sense of it all. By 2048, he believed that technology will be ready for the advent of this new artificial form of intelligence. Recently, a selection of the Kurenniemi files has been reanimated through the efforts of the Active Archive initiative in Brussels. I will probe Kurenniemi's works and data files to investigate what kind of "life material" he wanted to archive and how "life" and "living" was defined in this context, and how the Active Archive seeks to instantiate these ideas.

Jeremy Steeger, University of Notre Dame
Edgerton's Familiarized Spectacle: Making the Unseen Public
Harold "Doc" Edgerton devoted the majority of his life to making visible the hidden world of high-speed occurrences – to "seeing the unseen," as the title of one of his first films declares. Yet there is something peculiar about the public fervor over Edgerton's images: on the surface, his pictures were nothing new. The high-speed phenomena which the engineer and MIT professor photographed in his best-known work – phenomena such as milk drops and bodies in motion – were captured nearly thirty years earlier by flash photographers such as Arthur Worthington and Étienne-Jules Marey. This similarity poses the question: How did Edgerton make the unseen not only seen, but uniquely and successfully public? I posit that Edgerton's success lies in a tension at play in nearly all of his images: the tension between representational and presentational impulses. Edgerton famously claimed he presented "only the facts;" nonetheless, showmanship permeates his work. This tension resulted in a unique visual lexicon: the familiarized spectacle. By presenting his photographs as means to uncover facts, by couching unfamiliar high-speed events in familiar settings, and by imbuing his persona into his work, Edgerton created a spectacle of the unseen that demanded the public's attention. This paper explores how Edgerton's work diverged from that of previous high-speed photographers using the visual-epistemic framework recently illustrated by Peter Galison and Lorraine Daston. By examining Edgerton's published works alongside his laboratory notebooks and personal correspondence with professional photographers, the paper tracks the development of his unique visual style.

Session 11 (C)
Speculative Aesthetics and Aesthetic Speculations
Chair: David Cecchetto

This panel approaches speculation as an activity entailing a form of thinking that does not rest content on its own wonders. Thus while panelists engage the thinking constitutive of a 'speculative turn,' the emphasis here lies more in the initial impulse behind such an intervention

than in its resultant schematization. That is, an emphasis is placed on speculation as a lure for thinking so that aesthetic propositions are taken to be primary sites of inquiry—both practical and theoretical—precisely insofar as they refuse sensible delineation. In this, speculation links itself not simply to a revision of logical thought but to a form of sustained imaginative encounter—a postnatural form of thought that holds speculation and aesthetics in performative tension so as to radicalize the stakes of artistic and intellectual engagement.

David Cecchetto, York University
Broadly understood: Listening with a very fat head
One night I dreamed my head was 1,000 feet wide. The experience was disorienting, but perhaps productively so in so far as it catalyzed in me a desire to rethink what I thought I understood about sound. Since the mid-60s, our understanding of sound has been dominated by spectrum analysers that effectively represent a given sound as a combination of frequencies, a representation that is at the heart of both waveform analysis and sound synthesis. Supplementing this (ultimately positivist) rendering of sound, debates have proliferated (under the umbrella of 'pscyhoacoustics') over the role of hearing itself in constituting sound: hearing, after all, is a perceptual and sensual event as much as it is a mechanical one. Whatever ontological role one ascribes to sound, then, we can see that it is "postnatural" in the sense that it confounds even a provisional separation of culture, nature, and technology. The impulse behind this paper is a desire to historicize sound, both in its mechanical and psychoacoustic trajectories. With this in mind the paper considers the wearable artwork FATHEAD, which basically amounts to a microphone/headset that simulates how the world would sound if the wearer's head were 1000 feet wide. Of particular interest is the shift in the language of thresholds that the piece executes: the piece supplements the conventional thresholds of audibility (pitch and amplitude) with that of stereo relation. In short, when one's head is 1,000 feet wide the tensions between mon- and binaural listening are explicitly activated.

Ted Hiebert, University of Washington at Bothell
Nightmare inductions and the pataphysics of the postnatural
Last night I dreamed my teeth fell out—except it was much more than just a dream. It was a nightmare, characterized, as nightmares are, by an inability to differentiate the dream from waking reality. To awake from such an encounter does not make the experience go away: heart still racing, palms still sweaty, tongue anxiously touching teeth and gums to make sure they're still actually there. It's as if, with the nightmare, the imagination follows us back into the waking world—literally becoming real—even if only for a moment. One might speculate on this dynamic by proposing the nightmare as a form of aesthetic encounter—an encounter with the manifest imagination and a potential model for thinking about aesthetics in a postnatural world. More than rhetorical speculation, more even than suspended disbelief, this is the pataphysical promise of aesthetics as a form of speculative immersion. To encounter oneself as postnatural is to have moved beyond the idea of aesthetics as an activity detached from the reality of the world. It is to encounter oneself as an already aestheticized entity, caught up in the speculative negotiation of suspended reality. Part theoretical exploration, part artist talk, this paper contemplates the nightmare as an allegory for postnatural aesthetics. Among others, this paper will discuss a recent performance by the Noxious Sector Arts Collective—"Nightmare

Inductions"—in which audience members are led through a guided meditation in which their teeth fall out.

Eldritch Priest, Université de Montréal
Distracted Abductions: A hyperstitional theory of earworms
Often I dream about a worm that lives in my ear who's not only fond of stray melodies and autonomic processes, but who likes to remind me, again and again, that the future is over and what I'm hearing in my head is the noise of apocalypse. Though I've tried many times to make sense of this dream, I think it's become increasingly apparent to me that involuntary musical imagery, what's popularly known as an "earworm," is not a cognitive tick or neurological dysfunction but simply what distraction sounds like in a postnatural environment. In this paper I want to approach distraction as a form of lateral perception that the ubiquity of noo-technologies are making an increasingly central part of everyday awareness. Expanding on Elie During's notion of "lived simultaneity" as a set of moving reference frames, and Brian Massumi's observation that attention shares its nature with "the reflex workings of body matter," I re-imagine distraction in the context of contemporary culture's polymedia environment as a distributed reflex system in which the body announces its radical openness to contingency and happenstance, and speculate that earworms are nonsensuous aesthetic byproducts parasitic on our capacity to pay attention to what is happening in the fringes.

Session 11 (D)
Critical Games Studies 4: Metagames
Chair: Patrick Jagoda, University of Chicago

This is one of a series of four panels dedicated to critical game studies. The panel features a range of approaches varying from the historical and theoretical to the artistic. Participants include both game designers and scholars. The function of the series is to analyze how games operate in contemporary information economies and undertake a rigorous analysis of how games as a cultural as well as technological apparatus speak to larger political, cultural, and aesthetic issues.

Patrick LeMieux, Duke University
Blind Spots: The Phantom Pain, The Helen Keller Simulator, and the Disability of Games
In The Philosophy of Sport, Steven Connor argues that games are "not possible without the assumption of disability, which means that disabled [games] are the only kind there are." This essay will examine this concept of disability in videogames by first reviewing Hideo Kojima's forthcoming Metal Gear Solid V: The Phantom Pain (2013), a mainstream game featuring extensive cut scenes of a disabled veteran, and The Helen Keller Simulator (circa 2009), an unpopular internet meme typically consisting of a black, monochromatic screen. These games deploy figures of disability to demonstrate two extremes: the hypertrophy and atrophy of the visual economy of games. But what happens when disability is rethought not in terms of representational excesses or attenuations but in terms of the performances of players? In contrast to The Phantom Pain and the Helen Keller Simulator, the practices of blind players and players

who adopt blindness as a self-imposed constraint explore alternative sensory economies by "imposing disability in order for it to be possible partially to overcome it" (Connor). By opting out of the many new commercial games vying for their gaze and dollars, both blind and blindfolded gamers alike have created a second life based on the recycling of past platforms. With the games industry focused on blindsiding consumers, these disabled games turn blindspots into alternative forms of play.

David Rambo, Duke University
Determining Narrative: Spinoza's Unofficial Strategy Guide to One-Player Video Game
Much of the extant criticism about video game narratives has been a part of a debate between narratology and ludology. Whereas the former often privileges interactive choices, and the latter argues that game mechanics occlude storytelling altogether, this paper formulates the video game as a narrative platform composed of diegetic strategies of other media as well as of gameplay. Spinoza's definition of freedom marks the player's agency as the power for self-caused activity that derives from understanding a determinist causality. This approach acknowledges the authorship of the studio and the material constraints of code and console. From a cutscene to dialogue trees, I argue that gameplay never stops. I look at how Squaresoft's Final Fantasy VII (1997) implements traditionally literary and cinematic techniques alongside game mechanics in the case of traumatic flashbacks, shifts in point of view, and a tedious five-minute sequence of climbing stairs. Then I consider Arkane Studios' Dishonored(2012) in order to expand on how a Spinozist account of interactivity enriches an understanding of play as a simultaneous reading and writing of a narrative. The video game explicitly externalizes the player's active role in making sense of images, actions, and words. I conclude by drawing from recent work in the philosophy of mind which theorizes selfhood as a socionormative object of autobiographical narration. While this offers new ideas for analyzing video game narratives, it also implicates the player-character mediation of sense-making into a broader scope of cultural and market influences.

Stephanie Boluk, Pratt Institute
What Should We Do with our Games?
As of 2010, Nintendoʹs Super Mario Bros. celebrated its twenty-fifth anniversary. Pac-Man is thirty years old and the fortieth anniversary of Pong is approaching. While this timeline provides one history of videogames, it does not tell the whole story. The record of production and distribution of videogame software is a matter of numbers: of dates, dollars, and dynamics. But the social history of playʹthe human play that happens in, around, and through each piece of softwareʹremains mostly invisible. Just as Catherine Malabou argues that "humans make their own brain but they do not know that they make it," I wish to suggest that players make their own metagames when playing videogames, but that the logic of the marketplace obfuscates these relations. The videogame conceived as a piece of code, a set of processes, and an intellectual property is not, in fact, what we play in front of the television screen. The incommensurable gap between the microtemporality of computational systems and the phenomenology of the human player necessitates an act of interpretation--the construction of new, human-centered rules. This talk will discuss metagames not only as scholarly objects of study, but as a method for research and criticism. The metagame offers a way to uncover an alternative history of play defined not

by code, commerce, and computation, but through an ethical engagement with videogames. In short, "humans make their own [games] but they do not know that they make them."

Session 11 (E)
Book Panel
Muriel Combes's *Gilbert Simondon and the Philosophy of the Transindividual*, translated by Thomas LaMarre (MIT Press, 2012)
Chair: James J. Bono, SUNY-Buffalo
Thomas LaMarre, McGill University
Steven Meyer, Washington University at St. Louis
Hugh Crawford, Georgia Institute of Technology
Andrew Goffey, University of Nottingham

Session 11 (F)
Cognitive Codes for the Postnatural Brain
Chair: Kate Marshall, University of Notre Dame

Elizabeth Donaldson, New York Institute of Technology
ELIZA, Meet PARRY: Psychiatry and Mechanical Reproduction
In *Artificial Paranoia: A Computer Simulation of Paranoid Processes* (1975), psychiatrist Kenneth Colby describes the creation of one the early chatterbot computer programs, PARRY. PARRY, as Colby envisioned the program, was designed to mimic the language and thinking of paranoid people, exposing the otherwise "unobservable structure" or logic of paranoid human consciousness. In this paper I trace the history of PARRY and his more infamous precursor, ELIZA. Developed by Joseph Weizenbaum in the mid 1960s, ELIZA could mimic the language of a Rogerian psychotherapist and was one of the first computer programs to "pass" the Turing test. ELIZA and PARRY met several times, and their conversations are remarkable not only for what they reveal about contemporary conceptions of human language and cognition, but also for what they reveal about the clinical encounter between therapist and patient. I will argue that the encounters between ELIZA and PARRY reflect a deep ambivalence about the future of the therapeutic exchange, and presage an era in psychiatry in which mechanistic models of consciousness and mental illness exist in any uneasy relationship with the increasingly alienated labor of human psychiatrists.

Evan Buswell, University of California at Davis
Code as a Totalization of the Modern Episteme
The so-called information revolution is often anchored to the birth of the first fully programmable electronic computers in the 1940s, the ENIAC and EDVAC. What is strange about this account is that it gives priority to the *machines* (which were little more than a further development of the electromechanical tabulators dating from the 1890s) instead of the centrally new invention: programming languages, or *code*. Just as the onset of modernism in the 1900s was not marked so much by novelty as by the totalization of an already prevalent mechanization

along with the final destruction of the *ancien régime*, I will argue that the so-called information revolution is actually the final step in an ongoing epistemic conversion centering around the concept of information. However, from this final step, recentered around the concept of code, we do get a sort of qualitative shift in the episteme. Further, though I don't want to make overly broad claims here, there is a distinct similarity between this epistemic shift and more recent epistemic recenterings around the object such as in OOO, ANT, and Speculative Realism.

Session 11 (G)
Frozen in Time
Chair: John Sitter, University of Notre Dame

Alba Tomasula y Garcia, University of Chicago
Those Who Can(not) Be Seen
As the human population grows, our encounters with the animal population diminishes. In fact, it is not an exaggeration to say that the most intimate interaction many of us have with animals is when they are on our dinner plates. Or when we encounter them on display, either in the space of a zoo (when living) or a museum (when dead). The reduction of living, breathings beasts into heavily mediated bodies can be understood as an exercise of power; but it can also be seen as a symptom of discomfort with such power. Both the process of turning animals into meat (unrecognizable as animals) or turning them into "animal-objects" through the art of taxidermy, or confinement in zoos, puts in play an economy of the gaze, and its suppression, both of which conceal the existence of the animals as individual, living creatures. Specifically, most of the animal flesh in our daily diets come from billions of animals raised in cramped, filthy condition, but their very existence is tightly concealed: the very act of looking at them is outlawed in several states. Conversely, the taxidermied animals on display at numerous museums were created for the sole purpose of being looked at, although they too have been placed within carefully constructed environments through which only particular readings of these beasts can emerge. The animal as it is tends to not be there. Yet, increasingly, this is the only way we know them.

Jennifer Conrad, University of Wisconsin at Madison
Animal Afterlives: Taxidermy, Nostalgia, Futurity
Taxidermy, as Rachel Poliquin argues in *The Breathless Zoo: Taxidermy and the Cultures of Longing*, requires the material presence of nonliving bodies at the same time that it permits the human project of looking at—and longing for—something outside the self. While the longing that Poliquin identifies seems turned toward the past, my own investigation focuses on the present of the observer and how encounters with taxidermy can orient one toward action in the future. I examine taxidermy in recent literature and art, looking at short stories by Hannah Tinti and Joy Williams and photographs by Martin d'Orgeval and Laurent Bochet. Tinti's and Williams's stories reveal how animal bodies may stand in for absent others at the same time their material presence makes them incapable of being ignored as themselves, while Orgeval's and Bochet's photographs of taxidermy devastated by fire show what happens when the illusion of life is removed from taxidermied specimens and thus expose the possibilities for decay present in

living bodies. Engaging with Levinas's ideas about bodies, I claim that the crucial relationship between self and other is one between skins and not faces and contend that the skins in taxidermy function between living and dead, past and present, absence and presence. In this liminal space, taxidermy specimens begin to open up possibilities for mutual regard among species. Exploring the uncanny effects of such literary and artistic representations of taxidermy opens a conversation about how nostalgia for lost lives may enable preservation of what still remains.

Christina Colvin, Emory University
Post-Animal: Looks of Life and Afterlife in Modern Taxidermy
The term "anthropomorphic taxidermy" typically describes animal mounts arranged in human-like poses and as if performing human activities: Victorian taxidermist Walter Potter's "The Rabbits' Village School" (1888), a tableau of more than forty stuffed rabbits variously seated at desks, giving lessons, reciting lines, and writing on notepads, remains one of the most recognized examples. Strangely enough, regulation of the term "anthropomorphic" to describe only animal mounts posed to imitate human forms implies that anthropomorphism in taxidermy begins and ends with the externally visible, "unnaturally"-arranged animal body. Through an exploration of several trends and methods in modern taxidermy--including experimental (or "rogue") taxidermy, freeze-dried pets, and televised taxidermy--this paper will interrogate the supposition that "the natural" animal appears in the taxidermy mounts that most effectively obscure the artistic or interpretive touch of human taxidermists, or that "the natural" becomes visible when what is proper to the "anthropo" of anthropomorphism is concealed. I will further suggest that modern taxidermy's unique attempt to represent the "post-animal"--at once the animal after life and "the animal" at a time when the separation between *Homo sapiens* and all other species is continually and convincingly called into question--shows that the human/animal divide is both most obvious and most obscure in death.

Joanna Demers, University of Southern California, & *Mandy-Suzanne Wong*, Evental Aesthetics
"Mammoth": Art, Extinction, and Post-Naturalism
"Mammoth" is a novel-in-progress by Mandy-Suzanne Wong and Joanna Demers. When melting permafrost in Siberia reveals the preserved remains of a woolly mammoth, acclaimed artist Bruce Newhall makes of the defrosted carcass a solo exhibition at London's Tate Modern. Unbeknownst to one another, four protagonists from disparate lands attempt to appropriate the decaying mammoth as a desperate means of salvaging their own precarious futures. But the discovery, display, evaporation, and apparent rebirth of this extinct creature succeeds only in subverting the characters' attempts at self-preservation. Our presentation aims to think Newhall's artwork philosophically. In the parlance of object-oriented ontology, Newhall's mammoth is a hyperobject: a phenomenon of the Ice Age, the contemporary art world, post-Soviet Siberia, global warming, and extinction itself. An extinct animal become a human construct, this mammoth is in many ways "post-natural." Moreover, if, as in our interpretation, the work of Damien Hirst represents the culmination of what Hegel called the Romantic – and final – phase of art's development, Newhall's work might exemplify the ensuing phase, that is, art after the end of art. Timothy Morton names this aesthetically "post-apocalyptic" phase Asymmetric, as it is in this phase that hyperobjects overwhelm the humans who partially construct them. This is in stark contrast to the Romantic phase, in which human Spirit overpowers and exceeds aesthetic

objects. Our presentation considers how the aestheticization of the dead, decaying, and extinct strains philosophical concepts, setting such fundamental concepts as art and subjectivity against themselves.

Session 11 (H)
reconfiguring sensation: sensory prostheses and the postnatural sensorium 4. discussions.
Chair: Mark Paterson, University of Pittsburgh

'Reconfiguring sensation' considers how the sensate body has been co-constituted and reimagined through a combination of 'hard' technologies (hardware, interfaces), soft technologies (disciplinary apparatus or sensorial regimes), and more generally how scientific discoveries concerning the senses and new modes of somatic address have arisen since the original 'turn' to embodiment in the 1990s. We seek cross-disciplinary discussions of interfaces, artworks, and more generally 'aesthetic' encounters that problematize ideas of the sense 'modalities' as such. We therefore encourage examples, displays and 'walkthroughs' of such work. The panel considers issues such as: - how are sensory prostheses and technologies of sensory substitution (e.g. TVSS) reconfiguring the sensorium? - what can art-science collaborations, including digital installations, teach us about rewiring the senses or expanding our modalities? - what are the implications for the public understanding of cognition, perception, and sensation? - given the availability of biometric data collection for everyday exercise (e.g. FitBit, Nike+), what are the implications for somatosensation and our somatic imaginary? - what is 'natural' about our sense modalities anyway? - how have the senses been historically mediated through technologies that help us map our neurophysiological understanding of the body? - what effective aesthetic examples are there of mashups, remixes, reconfigurations, of senses and affects? - for those with sensory disability or impairment, how can technologies of sensory prosthesis make aesthetic experience available? - what happens 'after' touchscreens? how do other aspects of the body become implicated or addressed in the human-computer interface (HCI)?

Contributions by:

Patricia Olynyk, Washington University in St. Louis
David Gruber, City University of Hong Kong
Oron Catts, SymbioticA, The University of Western Australia
Rebecca Perry, Massachusetts Institute of Technology
Nora Sorensen Vaage, University of Bergen

Session 11 (I)
Writing the Alien Earth
Chair: Erin Labbie, Bowling Green State University

Bradley Fest, University of Pittsburgh
 Infinite Oppenheimers and Postnatural Metahistory: Jonathan Hickman's Manhattan Projects
From the perspective of what number of young scholars and nuclear critics are calling a second nuclear age, I would like to suggest that one site of the "postnatural" can be found in the remarkable cultural intersection between narratives of nuclear history and contemporary ecological understandings of catastrophe and risk. Though there are any number of instances of such aesthetic correspondences and dissonances, for instance the spectacle of cinematic destruction that dominated the last decade, one might do well to look to texts that, parallel to the non-event of Mutually Assured Destruction, eschew moments of narrative disaster. Writer Jonathan Hickman and artist Nick Pitarra's The Manhattan Projects (Image Comics, 2012-) is such a text, imagining that work on the atomic bomb at Los Alamos was "a front for a series of other, more unusual, programs." Hickman's writing picks up a tradition of re-imagining nuclear history, familiar to any reader of Thomas Pynchon, and adds a superheroic twist: J. Robert Oppenheimer is consumed by his infinite personalities, Enrico Fermi is an alien, F.D.R. is reborn as an A.I., Albert Einstein plays the role of Wolverine, etc. This paper will argue that Hickman's work emerges from a particular moment in which nuclear, information, and biological sciences are raising a host of interesting questions for contemporary narrative. Hickman's radically alternative history of twentieth century science and politics emerges from a postnatural perspective whose horizon surpasses the globe, positioning nuclear history within a galactic ecology in order to rigorously problematize the posthuman.

Elizabeth Kessler, Stanford University
"Family of Man" for Aliens: Trevor Paglen's "The Last Pictures" and the Desire for Cosmic Unity
In 2012, a collection of 100 photographs, dubbed "The Last Pictures," was etched in silicon and launched into space aboard a communications satellite. Artist Trevor Paglen's interest in deep time led him to pursue the project; the orbiting archive (as well as other satellites in similar locations) will continue to circle the earth for millions of years, outlasting human civilization and becoming its most enduring monument. Despite Paglen's evident enthusiasm for technology and for image making, he uses the collection to express strong ambivalence and suspicions about both. Furthermore, as he acknowledges, the likelihood of a future audience is incredibly slim, and the images are intended for a contemporary audience, one that may heed the warning they carry: technology has degraded humanity's relationship to the cosmos, to the natural world. "The Last Pictures" explicitly positions itself as a critique of the idealism of the Golden Records aboard the Voyager probes, and it also directly takes Walter Benjamin as its guide to understanding humanity's relationship to the past and the future. But equally interesting as these acknowledged debts are those that go unmentioned, most especially to two famous photographic exhibitions: Edward Steichen's "Family of Man" and Ansel Adams's and Nancy Newhall's "This is the American Earth." These earlier humanistic endeavors, the former about the relationship to human to each other and the latter about the relationships of humans to the natural world, would seem far from the postmodern skepticism that runs through Paglen's project. Yet he too wants carefully juxtaposed photographs to guard against the dangers of ideology and to argue for a restoration of cosmic unity, even as he suspects his efforts will fail.

Andy Hageman, Luther College
Astronauts, Radio-Waves, & Crypts: Media Ecologies of Tom McCarthy's C and Craig Baldwin's Spectres of the Spectrum
The Man-Booker Prize shortlisted novel, C, by Tom McCarthy and the brilliant found-footage (footage in the actual sense of 16 mm film) film Spectres of the Spectrum, by Craig Baldwin both create alternative techno-cultural histories of telecommunications devices, systems, and social impacts. Each of these narratives is so astonishingly compelling, that you must frequently remind yourself as you read or screen them that they are works of fiction. This paper explores two distinct yet complementary ideas that circulate in these texts and that approach the conference theme of "PostNatural." First, these stories present diverse representations of human beings as what Jean-Luc Nancy has called ecotechnical beings. People are technical products of a material ecology and the material ecosystems that comprise it, and we apprehend, shape, imagine, and communicate to, through, and about the world through the technical artifacts we produce. In this context, C and Spectres of the Spectrum offer alternative paradigms through narrative for thinking about relationships amongst human beings, techno-scientific artifacts, and other worldly matter. Second, both texts feature media archeologists doing media archeology. Excavating and organizing the techno-cultural past through stories that allow us to imagine different historical lines, arcs, and swerves enables us to re-imagine the eco-technical beings we have been and may yet become.

Session 11 (J)
Postnatural Border Crossings
Chair: Jesse Costantino, Notre Dame

Dale Pattison, Texas A&M at Corpus Christi
Embedded/Embodied Texts: Environmental Trauma and the Performance of Cultural Memory in Silko's Ceremony
Performance theorist Diana Taylor has written extensively on the value of performance as a means of confronting and processing political trauma. Embodying cultural memory, she argues, provides crucial avenues for processing traumatic events that are all too often overlaid and rendered invisible by state-endorsed projects of narrative production. This essay uses Leslie Marmon Silko's novel, Ceremony, to examine the relationship between print media, environmental trauma, and performance. I argue that, through the novel's chants, poems, and vocal incantations, Silko invites the reader to interactively practice the space of the text and thereby participate in the healing ceremony described in the novel's pages. This immersive process involves readers in the deep environmental trauma experienced by Native Americans in the postwar years. The environmental effects of uranium mining play a significant role in Ceremony, and confronting the political trauma produced by these institutional practices emerges as chief concern for Silko in her novel. Providing readers with opportunities to "perform the text" serves many functions: it highlights the deleterious effects of irresponsible environmental practices, it generates moments of cross-cultural connectivity, and it allows for the processing of political trauma. This paper therefore expands on the body of critical work surrounding

Ceremony, and at the same time theorizes our relationship to print media, arguing that performance is intimately linked to the practice of reading.

Andrew Rose, University of Washington
'We know but we can't act': the Role of Thoreau's Relational- Knowing in Kim Stanley Robinson's imagined Eco-Futures
Kim Stanley Robinson's Science in the Capital trilogy, in part, proposes that the crisis of climate change must be addressed by a "passionate science"; an approach to scientific practice clearly indebted to Harraway's concept of "situated knowledges". In the novels, scientist Frank Vanderwal's personal and professional transformation serves as a symbol of this shift from empirical to embodied, subjective, passionate science. Interestingly, he becomes a habitual reader of a website that features a daily quote from Thoreau. Robinson's choice of these transcendentalist figures as a motivating force in his character's personal transformation at first appears an unlikely one. Nonetheless, Thoreau's ideas play a central role in this near-future science fiction narrative about the crisis of climate change. Why does Robinson turn to Thoreau as the inspiration for a character moving away from the basic tenets of empirical science and toward 'situated knowledges'? What is it about Thoreau's ideas that Robinson finds so helpful in his narration of the potent for a transition to postnatural permaculture? And, finally, what depictions of nature, and the relationship between human and non-human communities, exist in Thoreau's work that Robinson might be drawing upon? This paper will turn to Thoreau with an eye to the role he plays in Robinson's trilogy. That is, as one source of motivation for Robinson's depiction of the search for a new approach to global climate change; one that might radically destabilize our concept of nature itself.

Eric Earnhardt, Case Western Reserve University
Imagining the Aesthetic Life After Nature in Willa Cather's *The Professor's House* and Marilynne Robinson's *Housekeeping*
Novelist Marilynne Robinson observes that "the oldest anecdotes by which we know ourselves as human, the stories of Genesis, make it clear that our defects are sufficient to bring the whole world down" (245). Keeping such stories in mind, this essay considers Cather's 1925 novel *The Professor's House* and Robinson's 1980 novel *Housekeeping* as narratives imagining instances of ecological aesthetic engagement. I read *The Professor's House* as a cautionary tale in which the aesthetic experience of nature becomes fetishized, habituated, and isolating, and therefore misaligned with psychological and bodily needs, the proper alignment of which is the precondition for sustainable aesthetic experience and human happiness. I then read *Housekeeping* as a narrative imagining a tightly circumscribed and costly liberation from social orders that strictly enforce subject/object and nature/culture distinctions, pointing to the difficulty of aligning the needs and dynamics of human intimacy and intimacy with nature in such a socio-economic system. I end by discussing these two narratives as vectors by which we may outline an ecological aesthetic life, one that does not imagine human flourishing or happiness apart from a new and thoroughly ecological consciousness in which nature becomes "not a thing thought of, but a part of consciousness itself" (Cather 19). I claim that art like Cather's and Robinson's contributes to the study of science and literature, in Percy Shelley's words, "the creative faculty to imagine that which we know" and "the generous impulse to act that which we imagine" (qtd. in Abrams 90).

11:30-12:30 Wrap-Up Session, McKenna Auditorium