

Society for Literature & Science

Annual Meeting 2004

With the cooperation of Duke University

Durham, NC

October 14 - 17, 2004

Society for Literature & Science

Annual Meeting 2004

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The conference organizers would like to thank especially the following for their assistance:

Paul Youngman

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David Kirby

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Conference Layout

Ballroom

Hotel

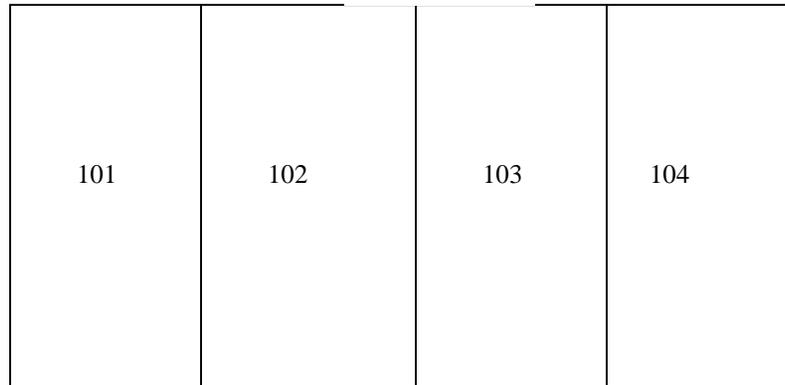
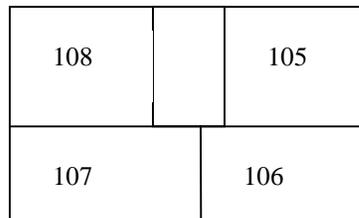


Exhibit Hall

Meeting Rooms



Schedule at a Glance

| Date/Time | Room 102 | Room 103 | Room 104 | Board Room II | Room 105 | Room 106 | Room 107 | Room 108 |
|-----------------|---|-----------------------------------|--|---|--|--|---|--|
| Th 10/14 | | | | | | | | |
| 5-6:30pm | | | 1A Interdisciplining Animals | 1B Pharmakos, Double-binds, Singularities | 1C Textual Play: Women and Literary Hypermedia | 1D Lens of Science: 19 th Century Representations | 1E Rhetoric of Virtual Embodiments | 1F Sciences of the Virtual: Deleuze and Beyond |
| 7-8:30pm | | | 2A Darwin's The Descent and Animal Studies | 2B Constructing Cultural Meanings of Genetics | 2C Ruth Ozeki: Manifesting Agricultural Studies | 2D Communicating Alien Materialities | 2E Authors and Artifacts | 2F Encounters with Islam: Science, Math, Writing |
| Fr 10/15 | | | | | | | | |
| 8:30-10am | 3A Historicizing the Question of the Animal | 3B Visualizing the Body | 3C Gaming Modes | | 3D Science and Nature Writing | 3E Posthuman Identities | 3F Science in Spanish Literature | 3G Pedagogies of Science |
| 10:30-12 | 4A The Beast in the Garden in 18 th Century France | 4B Visible Fantasies | 4C Latour and the Limits of the Human | | 4D American Literature, Science, Society | 4E Narrating and the Network | 4F The Violence of Identity | 4G Number, Text, Artifact |
| 1:30-3pm | 5A Animal Studies/ Other Studies | 5B Problematising Pregnancy | 5C Mathematics and Imagination I: Pre-Modern | | 5D 19 th Century Science: Darwin's Contemporaries | 5E Intelligence and Information | 5F Ethology, Ecology, Ethnicity and Science | 5G Poetry and Science: 18 th and 19 th Centuries |

| Date/Time | Room 102 | Room 103 | Room 104 | Board Room II | Room 105 | Room 106 | Room 107 | Room 108 |
|--|--|---|---|---------------|--|---|---|---|
| 3:30-5 | 6A Livestock | 6B Representing Contagion | 6C Mathematics and Imagination II: Modern | | 6D 19 th Century American Literature | 6E New Media: Music and Poetry | 6F Alchemy, Metals and Magic | 6G Encountering the Alien |
| 5:30-7 | Guest Scholar Session | | | | | | | |
| 7-8 Reception – Room 101 | | | | | | | | |
| Sat 10/16 | | | | | | | | |
| 8:30-10am | 7A Humans and Animals | 7B Writing Bodies/ Reading Habits | 7C Negotiating Marginalized Cyber Identities | | 7D Bio-Techno Science Fictions | 7E Early Modern Literature and Space | 7F [Performing and Art] | 7G Nature, Science, Fiction |
| 10:30-12 | 8A Ethics, Environment and Ecology | 8B Sciences of Affect I | 8C Autopoeisis and Complexity | | 8D Writing Medicine | 8E Science, Law and the Courts | 8F Pleasure, Sentience and the Sublime | 8G |
| 12-1:30pm Business Lunch – Room 101 | | | | | | | | |
| 1:30-3pm | 9A Reading Visual Images of Animal Bodies | 9B Sciences of Affect II | 9C Scientific Mappings | | 9D Art History I: Art and Science in the 19 th Century | 9E [Science Fictions] | 9F Drama, Science and Medicine | 9G Woolf, Borges, Plath |
| 3:30-5 | 10A Crossing Scientific Boundaries | 10B Sciences of Affect III | 10C Re-imagining Learning, Teaching, and Tenure | | 10D Art, Technology, Science and Beyond | 10E 19 th Century Machines and Psychology | 10F 20 th Century American Writers and Science | 10G Sociology, Sociobiology, Fact and Fiction |

| Date/Time | Room 102 | Room 103 | Room 104 | Board Room II | Room 105 | Room 106 | Room 107 | Room 108 |
|---|---------------------------------|---|--|---------------|------------------------------------|--|---|---|
| 5:30-7 | Guest Scholar Session | | | | | | | |
| 9:30-12midnight – Dance Party – Room 101 | | | | | | | | |
| Sun 10/17 | | | | | | | | |
| 8:30-10 | 11A | 11B Sexology and Psychoanalysis | 11C The Tech and Techne of Anima and Manga | | 11D Robotics and Cybernetics | 11E Film Studies | 11F Faith and Science Across Cultures | 11G Considering Chemistry |
| 10:30-12 | 12A Psychosomatic Science | 12B 19 th Century Disabilities | 12C Digital Media/ Remediation | | 12D [Artists and Science] | 12E Travel: Gender, Race, Empire | 12F Margaret Atwood's <i>Oryx and Crake</i> | 12G Mapping, Traveling, Living in China |
| 12-1pm | Wrap-up Session | | | | | | | |

Session 1

Thu, Oct 14, 5:00 pm - 6:30 pm

Session 1A: Interdisciplining Animals

Room 104

Panel Chair: Susan McHugh (University of New England)

Respondent: Matt Cartmill (Duke University)

Frankenstein's Dogs or, Fictions of Lab Science

This paper will explore how certain canine fictions of lab science negotiate what are perhaps the most irreconcilable disciplinary poles characterizing the so-called two-culture divide: animal rights philosophies and laboratory science practices. Among the many remakes and revisions of Mary Shelley's novel *Frankenstein*, recent texts cast dogs not just as scientific creations but also as members of scientific teams. Together these very different stories about Frankenstein's dogs do more than simply reflect a split between active or passive, actual or fictional narratives of scientific subjects. Addressing anxieties about compromising scientific "objectivity" by granting varying degrees of social agency to animals, they also present a range of models for conceptualizing animals in laboratory life. Examinations of these narrative patterns raise broader questions about how animal studies offers a means of critically engaging with animal science and rights philosophies.

Susan McHugh (University of New England)

An Obsession with Boundaries: Animal Studies in its Own Right

This paper will examine some of the current limitations of animal studies and suggest ways in which the subject might be seen as a disciplinary area in its own right with quite particular forms of theorizing that do not relate to those derived from traditions in the humanities geared to explaining human questions. Whilst there are some exceptions to this picture, there has been to date far too much focus on the human as the centre of gravity of animal studies; a bias towards textual sources and textual readings of the animal; a lack of interest in cultural and social differences in attitudes and practices towards animals both within the same society and across societies globally; and a lack of a sense of urgency in attending to the problems facing human-animal relations. Recent postmodern and post human analyses, interesting as they are, have represented a step backwards in animal studies failing to grasp the practical and institutional frameworks of human-animal relations of what is a very dark history as well as continuing, albeit unintentionally, to fetishism the human. There is a need to move the animal to centre stage in animal studies and develop theories out of the overall framework of human-animal relations rather than use those developed for a different purpose, which is that of a specifically text based Western theoretical tradition.

Jonathan Burt (Animal Studies Group, UK)

This Is the Trunk . . . and This Is the Tale: Elephants, Science, and the Humanities

Building on the panel's overall interest in disciplinary and interdisciplinary discussions of animals, this paper examines the conundrum faced by a cultural historian attempting 1) to make sense out of scientific accounts of elephants, and 2) to translate the definitive vernacular of "science" into something that would make sense to both other historians and a more general audience.

Nigel Rothfels (University of Wisconsin-Milwaukee)

Session 1B: Pharmakos, Double-binds, Singularities

Board Room II

Panel Chair: Michael A. Fortun (Rensselaer Polytechnic Institute)

Doublebinds and Other Moving Objects in the Anthropology of Technoscience.

This paper discusses various "objects" – doublebinds, experimental systems, promises, faultlines – that anthropologists have used to situate technoscience historically, and to elicit technoscientists' own historical sensibilities. Doublebinds, for example, as conceived by Gregory Bateson, confront people with multiple obligations that cannot all be fulfilled; they cannot be "solved" through reference to existing explanatory narratives. Doublebinds are failures of language and meaning. They also spur creativity, forcing people to "dream up" new ways of understanding and engaging the world. Experimental systems, as written about by Hans Jorg Rheinberger, are what scientists work with to produce new knowledge. Such systems must be capable of "differential reproduction," allowing shifts and displacements in the investigative process that produce something different from what was known before. Like double binds, experimental systems require oscillation between what is known and what is not known; they require choices that cannot be made through reference to existing explanatory narratives.

Kim Fortun (Rensselaer Polytechnic Institute)

A Social Science Fiction of Pharmakons and Fevers: Malaria, the colonial laboratory and the post-colonial new human.

This paper explores malaria research and eradication campaigns through both social science and science fiction. Malaria is a classic actor-network in that it is caused by a parasite transmitted by a vector to humans and thrives in a range of milieux. It is more a relation than a thing and thus very difficult to eradicate as many aspects of the disease and its cure remain poorly understood. Because of this I deploy social science fiction as a laboratory to explore malaria as a disease, a transmitter, and human attempts to confront it as a pharmakon, both cure and poison. I draw on my own fieldwork on research and public health in Latin America and a science fiction novel, "The Calcutta Chromosome: A novel of fevers, delirium and discovery," written by the social scientist Amitav Ghosh. I put social sf in play with critical studies of technology, medicine, and empire, to explore Europe's colonies as laboratories of modernity with both work (labor) and slippage (labi). My paper will follow Ghosh in linking malaria with colonial tropes (ways of knowing) and troops (the militarized aspects of colonial and post-colonial science) to imagine a new human arising from the interconnections and counterscience devised in such laboratories.

Diane M. Nelson (Duke University)

Pursuing Singularity in the Sciences: Experimental Moments in Biological Nitrogen Fixation Research.

This paper stages a conversation between historians of the life sciences and biological nitrogen fixation (BNF) researchers, inhabitants of the plant, microbial and symbiosis sciences. These scientists describe their encounters with the biological, technological, social, ethical and semiotic worlds they inhabit, and the historian listens for articulations of experimental moments amid handy generalizations of objectivity and method, and scientists' reconstructions of the rational processes of discovery. Experimental moments are moments of singularity, irreducible events in the sciences, generators of surprise. Isabelle Stengers has characterized the singularity of the science practiced by Barbara McClintock as "the search for ways through which the world can force us to abandon the ideas we have about it" (1997). In studying the sciences, how might science studies scholars likewise engage with their subjects in the writing of their history? Can conversations with scientists eliciting rich descriptions of scientists' practices, encounters and habitations force us to abandon the general ideas we have about scientists and the sciences?

Jeanette Simmonds (Rensselaer Polytechnic Institute)

Session 1C: Textual Play: Women's Work in Literary Hypermedia Worldwide

Room 105

Panel Chair: Marjorie Coverley Luesebrink (Electronic Literature Organization)

Panelist: Marjorie Coverley Luesebrink (Electronic Literature Organization)

Panelist: Laurie Taylor (University of Florida)

Panelist: Stephanie Strickland (Columbia College Chicago)

Session 1D: The Lens of Science: Tensions in 19th Century Representation of Nature in Painting, the Agricultural Treatise, and Natural Theology

Room 106

Panel Chair: Benjamin R. Cohen (Virginia Tech)

Dabbling with Davy: The Opaque Lens of Chemistry in American Agricultural Writing

Agricultural treatises are peripheral to the nature writing genre, even though the dominant form of environmental interaction in both northern and southern nineteenth-century America was agricultural. In the early Republic, before agricultural chemistry became the credible contributor it would later be, those texts also provide examples of how, using the lens of chemistry, Americans understood and described the nature they cultivated. In this paper, I refer to three regional texts aimed at improving agricultural practice--by Edmund Ruffin (Virginia), John Lorain (Pennsylvania), and Daniel Adams (New England)--as a way to explore how chemistry fit between the authors and their subjects. Humphry Davy's (1813) *Elements of Agricultural Chemistry* was the main resource for almost all treatises on the relation of chemistry to agriculture. Thus, in this paper I discuss how the authors refuted, appropriated, or tempered Davy's work as they wrote about the cultivated land around them.

Benjamin R. Cohen (Virginia Tech)

Martin Johnson Heade's Hummingbirds: in the tropics & between the poles, mediating science and art

Martin Johnson Heade (American, 1819-1904) painted over 100 paintings of hummingbirds: beautiful, detailed, and difficult-to-categorize combinations of landscape, natural history, and still life. In London in 1864, he planned to complete a monograph on hummingbirds, which remained unrealized. But these hummingbird paintings led to a flock of hummingbird pictures, images that combine the descriptive with the suggestive. The images and Heade's writings about hummingbirds reveal the distinctly nineteenth-century tension between making his work harder -- by making it more accurate and scientifically rigorous; and making it more poetic -- by designating the hummingbird's fairy-like nature through the artist's magic of illusion. Working in the midst of the battle between Darwin and Agassiz, he painted his own battle between scientific illustration and fairy magic. Juxtaposing Heade's paintings with images from his contemporaries in British and American natural history, I investigate the ways Heade's peculiar paintings reveal more than birds and flowers, but reveal the extras anxiously.

Betsy Towns (UNC-CH Art Department)

William Paley, Gilbert White, and the New Awareness of Local and Exotic Nature in England

Alan Rauch (University of North Carolina at Charlotte)

Session 1E: The Rhetoric of Virtual Embodiment, Intelligent Assistants, and Virtual Humans

Room 107

Chair: Sheryl Brahnem (Southwest Missouri State University)

The virtual text is watching you: Facing the virtual face interface

Title: The virtual text is watching you: Facing the virtual face interface Author: Sheryl Brahnham (MFA art and PhD computer science) Email: shb757f@smsu.edu Abstract: This paper considers the text as a missing face. The analysis begins with Socrates' complaint that writing is inferior to speech because it cannot see and adapt its message to the reader. It explores the post-Renaissance obsession with face reading and the modern obsession with rewriting the human face. The essay ends with electronic text. Businesses now track readers, building individual profiles that are used to assemble personalized pages. Socrates' objection that writing is unable to perceive the reader no longer holds: the virtual text is watching you. And it is watching you with virtual eyes. There is a growing interest in face interfaces that are capable of perceiving and talking. Not only are these virtual faces learning to read the user's face, but they are also learning to write their own faces--to map rhetorical forms to the character of their interlocutors in ways Socrates could not have imagined.

Sheryl Brahnham (Southwest Missouri State University)

Designing Women the Old-Fashioned Way: The Gendered Rhetoric of Animated Interface Design

As animated and intelligent software agents become increasingly popular user interfaces on the web, we need to attend critically to the values that inform their design. Put simply, agents that are designed to seem "humanlike" are inscribed with cultural values about what it means to talk, act, and look human. Moreover, given that users treat computers as social actors, it is important that critics pay attention to the ways in which virtual agents are sustained through a set of design ideologies and styles of interaction. First, this paper will address the history of the female automaton, and how that history is mirrored in today's virtual agents. Then, this paper will build on that history to explore the gendered rhetoric of intelligent interfaces in news media discourse. Web agents are too often figured by designers as young women in stereotypical roles (e.g. secretary, sex object, etc.), and are supported in the news media by a discourse that celebrates technological innovation as an end in itself. As a result, stereotypes are reinforced; the technologist's perspective is treated as normative while the perspectives of potential users and critics are minimized. But more importantly, technology comes to serve an ideology in which women are feminized, treated as objects. The idea of women as automatons to be programmed and controlled is made literal through the construction of tools that are figured as young women eager to lend a hand.

Sheryl Brahnham (Southwest Missouri State University)

Sean Zdenek (Texas Tech University)

Session 1F: Sciences of the Virtual: Deleuze and Beyond

Room 108

Chair: Arkady Plotnitsky (Purdue University)

Intuitionism as Minor Mathematics

Through numerous examples, Gilles Deleuze stakes out a *minor* mathematics, a political mathematics in which problems take priority over solutions, the local matters more than the universal, and the fate of the mathematics is tied to the activity of the mathematician. The twentieth-century school of mathematics, *intuitionism*, is the paradigm of minor mathematics. A study of the history of the intuitionist definition of number demonstrates its close alliance with Deleuzian ideas and shows a minor mathematics at work. Moreover, this history of intuitionism suggests lessons about intellectual history more generally, isolating the moment where the secure traditions of a discipline fracture to forge new techniques and concepts. This general claim about history is tested in another domain: the generation of meaning in sound.

Aden Evens (Massachusetts Institute of Technology)

The Working of the Virtual: Between Modern Physics and Gilles Deleuze's Philosophy

This essay will explore the conjunction(s) between Gilles Deleuze concept (including in Deleuze and Guattari's special sense of philosophical concept) of the virtual, from his earlier works to "What Is Philosophy?" and modern mathematics and physics, including some of its most advanced developments, such as chaos theory and, most especially, quantum field theory. While the essay will offer a comprehensive discussion of the relationships between the workings of the virtual in Deleuze and modern mathematics and science, the core argument of the essay will address the relationships between the idea of virtual particle formation, introduced by Paul Dirac as part of his discovery of antimatter, arguably the most

radical idea of the 20th-century physics (going even beyond quantum mechanics) and Deleuze and Guattari's equally radical concept of chaos in "What is Philosophy?". Deleuze and Guattari argue there that philosophy and mathematics and science are different ways to keep at bay chaos, which they see as, or even *the*, "enemy of thought." While supporting this argument, the essay will also argue that modern mathematics and science and specifically the idea(s) of virtual there are also philosophical and, I shall argue, indeed Deleuzian, and mathematics and science use this Deleuzian strength of their concepts to fight the chaos of thinking.

Arkady Plotnitsky (Purdue University)

The Fictions of Science and the Physics of Lev Landau - Quasi-Particles, Broken Symmetry and Quantum Field Theory in Condensed Matter

While Quantum Field theory is usually thought of in the context of elementary particles and high energy physics, some of the most widely used field theory concepts were born in the work of Lev Landau and other Soviet physicists working on superfluidity, superconductivity and other problems in mid-20th c condensed matter physics. Landau developed the notions of quasi-particle and broken symmetry as what are sometimes referred to (not in a laudatory tone) as "quasi-phenomenological" theories. Through these examples I explore the introduction of "ficta" in physics such as quasi-particles (on the model of "Musica Ficta") and the parameters controlling their development. I place the use of the devices in the context of the discovery and development of new physical subject matters and argue for the special nature of such an enterprise.

David Reed

Session 2

Thu, Oct 14, 7:00 pm - 8:30 pm

Session 2A: Darwin's *The Descent* and Animal Studies

Room 104

Panel Chair: Lee Sterrenburg (Indiana University, Bloomington)

Ethical Animals in *The Descent of Man*

As part of his naturalistic account of the origins of morality in *The Descent of Man*, Darwin suggests that intelligent social animals will tend to produce individuals who are capable of sacrificing their lives for the good of their fellows. As evidence, he cites anecdotes such as that of the older baboon who returns to rescue a young baboon from a circle of angry dogs. Recent work has lent support to Darwin's argument, and suggested mechanisms by which proto-moral self-sacrificing behavior might be favored by natural selection. (I make use of de Waal's *Good Natured* here.) When, in his conclusion, Darwin asserts that he would as soon be descended from such a heroic baboon as from savage humans who commit torture and infanticide, he invokes the arguments of Enlightenment conjectural histories; but he inverts most of those narratives by arguing for a stronger connection between civilized humans and ethical apes than between modern Europeans and non-European savages. Still, there remains a continuity between Darwin and the conjectural historians, for they both place savages beneath the other humans or animals with whom they are compared.

Frank Palmeri (University of Miami)

Evolutionary Groundings for Animal Studies: Hume's and Darwin's Critiques of the Fixed and Preserved Enlightenment Animal

Travel narratives, natural histories, and speculative histories of the Enlightenment often used rhetoric about the "preservation" of the species and the self in order to argue that species are machine-like or have fixed

morphologies, instincts, or behaviors. At the same time, Enlightenment writers produced numerous empirical exceptions to their own rules about fixity. They found changing instincts and behaviors among many kinds of mobile organisms, including birds and mammals. David Hume exploited that contradiction in his *DIALOGUES CONCERNING NATURAL RELIGION* of 1779. Charles Darwin in *THE DESCENT OF MAN AND SELECTION IN RELATION TO SEX* turned the received languages of "preservation" into a language about changing proclivities in animal mate choice, animal aesthetics, shifting instincts, and animal impacts on the surroundings. We should start our own animal studies of the present time with details of Darwinian evolution and not with continued pro-forma attacks on a fixed Enlightenment animal—a being that existed only as a figment of philosophy.

Lee Sterrenburg (Indiana University, Bloomington)

Becoming Darwinian: Narrating the Body in Darwin's *Descent of Man and Selection in Relation to Sex*

As current critical theory looks to "the animal" in order to "subvert the subject" or "deterritorialize" Oedipal linguistic systems, the need to reconsider Charles Darwin's nineteenth century deconstruction of 'man' as subject, author, and independent creation becomes increasingly significant. In this paper, I would like to consider Darwin's work, particularly in relation to narrations of non-static bodies, in the *Descent of Man and Selection in Relation to Sex* as a model of linguistic play that has prior to twentieth century science or theory already called into question the efficacy of classification systems and narrative style. While part of my concern in this paper will be with actual bodies (both in Darwin's text and in its illustrations), I will also consider the tensions within Darwin's theory as he negotiates his own ability to read and write natural bodies outside of traditional literary trends.

Jill Hochman (Indiana University, Bloomington)

Session 2B: Constructing Cultural Meanings of Genetics

Board Room II

Panel Chair: David Kirby (Duke University)

So Real It's Scary: The Impact of Jurassic Park on Biotechnology and Genetic Research

Jurassic Park is a striking example of how a fictional entity with the veneer of scientific reality can create fear and distrust. Jurassic Park has certainly inspired academic discourse about the cultural impact of genetic engineering and genetic research. What has yet to be addressed is how Jurassic Park, whether its message was valid or not, has had a major impact on genetic research and the field of biotechnology by influencing public attitudes towards these research areas. In this paper, I will demonstrate the ways in which Jurassic Park has affected both the academic and corporate research communities. I argue that the film's veneer of "reality," coupled with public statements from filmmakers and scientists proclaiming "scientific authenticity," has significantly contributed to the scientific community's anxiety about the film and resulted in a significant impact on real scientific research.

David Kirby (Duke University)

If everything is transformed then what is extinction? Transformation and Transgress in Julia Leigh's *The Hunter*

Extinction, much like the genes that are supposedly lost when a species disappears, is more conceptual than categorical. Rather than an absolute state, extinction is subject to the transformative tendencies of natural science in its speculative mode. The scientific and popular reaction to the recent success in extracting usable DNA from Tasmanian tiger specimens in the Australian Museum—whether or not it can help clone the animal "back to life"—demonstrates the symbolic value of such research. Experimental Tassie tiger DNA has taken on its own esteemed existence, referencing the island's unique indigenous life, the colonization that has threatened it, and the conservation efforts meant to hedge against further extinction. Part molecule, part ghost, the striped marsupial carnivore known as the thylacine has become, in its lively extinction, Tasmania's national mascot. In this way, the thylacine of the imagination compels a reexamination of such categories as death, uniqueness, postcolonialism, and national identity. I undertake

this reexamination in an analysis of Australian author Julia Leigh's acclaimed first novel, *The Hunter*, identifying ways that this bioprospecting narrative both revises and reinscribes these categories.

Stephanie S. Turner (University of Houston-Downtown)

Sacrifice, Resident Evil, and the Economics of Genomics

In this presentation, I interrogate the role of sacrifice in two "texts": on the one hand, the 1990 case of *Moore v. The Regents of the University of California* and on the other, the recent Hollywood sci-fi horror film *Resident Evil* (2002). In the Moore court case, California Supreme Court justices argued that the only way to prevent a "sacrifice . . . of . . . innocent parties" was to deny plaintiff John Moore property rights to a genetically altered cell line created from his diseased spleen. The court justified its claims by describing an "informational ecology" that connected the public with university research centers and corporations. By interrogating the role of "sacrifice" in a world in which genetic research has been completely commodified, *Resident Evil* explores--and to a limited extent, critiques--the assumptions about information, innovation, and time that underwrote both the Moore decision and the Bayh-Dole legislation that provided the logic of the Court's decision.

Robert Mitchell (Duke University)

Culturing the Pleebland: The Idea of the "Public" In Genetic Art and Fiction

In what follows, I want to take aim at some of the implied premises in Lander's statement -- first, that there is a coherent "public" available to receive and interpret images of and metaphors about genomic research; second, that such images circulate freely and equally, constituting in their multiplicity a form of "struggle" over the meaning of the genome, and third, that this "struggle," mediated by the "public," eventually plays a role in the ways in which scientists themselves see their object of study and pursue their research. While I do not deny a link between cultural representation and social and scientific practice, I want to shift our attention from a strict close reading of the cultural imagining of the genome to one that pays more sustained attention to the context of these imaginings, their conditions of production and means of circulation. Are the actual publics for works of genetic art and literature congruent with the publics imagined by their creators? How do the creators position themselves in relation to the public they construct? Do they hope that their work will change the nature of the public's relationship with genetic research? Finally, does there lurk in many of these texts, a disdain for the masses that exists in tension with the idea that the "public" needs to be saved and enlightened?

Lisa Lynch (Catholic University)

Session 2C: Novelist Ruth Ozeki reads: Manifesting AgriCultural Studies

Room 105

Panel Chair: Susan Squier (The Pennsylvania State University)

Manifesting AgriCultural Studies

Ruth Ozeki will read from *All Over Creation*, her new novel about the battle between the forces of agribusiness and environmental activism over GMO's, and the effects on a potato farming family in Idaho. Michael Pollan (author of *Botany of Desire*) says, "Ruth Ozeki is bent on taking the novel into corners of American culture no one else has thought to look but where she finds us in all our transcultural and technological weirdness. With a combination of humor and pathos that is all her own, *All Over Creation* brings the American pastoral forward into the age of agribusiness and genetic engineering. The result is a smart and compelling novel about a world we don't realize we live in." Ozeki is author of the award-winning *My Year of Meats*, as novel about global media and meat production, and the hormone DES.

Ruth Ozeki

A Manifesto for AgriCultural Studies

This paper takes Ruth Ozeki's *All Over Creation* as model for a new kind of Manifesto for a new field: AgriCultural Studies. My argument has three parts: First, that the Manifesto as a genre has a crucial, if forgotten, history in the defining debate of modern agriculture: the Diggers' activism against the enclosure acts in 17th century Britain; Second, that this forgotten moment of agricultural history has shaped not only

the genre of the manifesto but, crucially, the notion of citizen arising from it and prevailing to this day: a civic subject understood as male, able-bodied, and capable of labor; Third, that although cultural studies has historically privileged the urban environment as it has explored the role of culture (and the culture industry) in the ideological production of the citizen, cultural studies *must* now incorporate the new field of AgriCultural Studies, because the increasingly central role played by agriculture in the definition and production (scientifically, technologically, reproductively, politically, and culturally) of the citizen (body and mind). As Ozeki's work demonstrates, that perspective of AgriCultural studies has the power to illuminate the intersecting relations of class, race, ethnicity, sex/gender, and ability. My conclusion will argue that Ozeki's work embodies a new kind of postmodern Manifesto. Instead of the classic modernist manifesto: an impassioned, univocal, antagonistic enumeration of grievances concluding with a demand for access to the benefits of modernity's technological and scientific progress, Ozeki's postmodern manifesto is a joyful, multi-vocal, inclusive, performative demonstration of the alternatives to that failed notion of progress that lie in a commitment to sustainable community.

Susan Squier (The Pennsylvania State University)

The Message is the Medium

Priscilla Wald (Duke University)

Session 2D: Communicating Alien Materialities

Room 106

Panel Chair: Robert Markley (University of Illinois)

Methane on Mars: Message and Materiality, 2004

This paper examines scientific responses to the confirmation by three independent teams in March 2004 that methane exists in the Martian atmosphere at concentrations of ten or eleven parts per billion. In the thin Martian atmosphere, methane molecules break down in less than three hundred years; therefore, the existence of the gas indicates an active source that must be replenishing this trace amount of methane. On earth, methane almost invariably is a marker of biological processes, although it also can be produced by geothermal activity. Even if methane on Mars can be traced to a volcanic or hydrothermal source, the existence of such activity beneath the planet's surface increases significantly the odds that methagans (bacteria that produce methane as a byproduct) currently exist on Mars: terrestrial thermal vents and hot springs teem with exotic forms of these extremophile microorganisms. Atmospheric methane on Mars, in effect, exists both as a material trace of as yet undetermined processes and as a sign within a complex semiotics of scientific representation. This paper draws on the work of Michel Serres, Bruno Latour, and Niklas Luhmann to investigate the ways in which ambiguous scientific data produces complex, often competing, and invariably incomplete efforts to describe both historical narratives of causation and larger environmental systems.

Robert Markley (University of Illinois)

Making It Stick: Mud, Mortar, and Other Technologies of Empire

This paper contributes to the extended critique of the Enlightenment (as concept and historical phenomena) developed by feminists, by scholars of slavery and empire, and by materialist critics of varying persuasions, all of whom have pointed to the many forms of systematic exploitation and exclusion developed by the agents of European Enlightenment thought and practice. "Technologies of Empire" focuses primarily on India and the crucial ways in which technology, scientific practice, and epistemology informed European Enlightenment values and socio-political norms: the production of ice, the practice of inoculation (small pox), or the idea of 0 and its influence on mathematics. The first half of this paper focuses on substances--mud, mortar, surgical glue--excavating the history of their representation in late seventeenth- and early eighteenth-century India, in English encounters with these substances, and how they function as enduring cultural metaphors. The second half addresses technological implications of the relation between substance, sublimation, and the scientific sublime in Pope's Windsor-Forest. I conclude with a short discussion of "laptop colonialism" which links the complex historical relations between machinery and epistemological mastery and the shift in those relations that now understand manufacture as sullyng labor. Mud, mortar,

and glue structure the edifices of western identity and Asian alterity, cementing the material and the sublime, but such structures always are threatening to crumble.

Rajani Sudan (Southern Methodist University)

Extra-Terrestrial Encounter: Observation and Communication in Narrative and Systems

Social systems theory focuses on observation, but also makes a distinction between observation and operation: observation is one among many kinds of operations systems perform. Meanwhile, narrative theory has refined a distinction between narration per se and focalization, understood as the realm of perceptual perspectives organized, in Mieke Bal's narratological scheme, at the level of the story enacted by the text. Emerging in separate disciplinary realms, these two discourses of distinction—the operation/observation distinction, and the narration/focalization distinction—can be productively aligned. Narrative frames can be examined for significant messages about the interplay of psychic and social systemic operations and observations. This talk will explore that alignment through two mainstream science fiction narratives from the later 20th century, recounting allegories of encounter between human and alien societies, *Childhood's End* and *Contact*.

Bruce Clarke (Texas Tech University)

Session 2E: Authors and Artifacts

Room 107

Chair: Robert Fanning (West Virginia University)

Easier-Travel.com: Active immunization for your inner tourist

Easier-Travel.com We travel for pleasure and we travel for business. Our hunger for the authentic is boundless. Easier-Travel is a robotic messenger system with a dynamic database that mimics online travel services. Appropriating the technique and rhetoric of the travel industry, Easier-Travel brings tourism to its logical conclusion: the null trip. Travel proper is replaced by satellite events reminiscent of travel: messages, confirmations, welcome notes, warnings, advisories, rules and regulations, and finally, borrowed memories. Easier-Travel is active immunization for the inner tourist lurking in us all. As opposed to booking trips, visitors to Easier-Travel book the anticipation and fabrication of memory. This alternate travel reality is bound by the ritual of travel preparation, expectation and reenactment through the imagination of what might have been. Easier-Travel organizes a trip as travel agents do, with efficiency. Visitors choose a destination, date, and travel preferences. The Easier-Travel messaging agent notifies them of their booking, confirms flight details and issues travel advisories. Usually, everything goes according to plan. But travel always carries the potential of the unexpected and extraordinary. A few days after the trip that never happened is over, the Easier-Travel messaging agent sends its customers images from the destination they could have visited. These documents of the supposed trip are a trajectory for the imagination of the travel weary. Collected over decades by seasoned travelers, this database constitutes a repository of travel destinations and tourist traps. Tourism, organized travel, is an expression of collective longing for the other place where vain hopes, false promises and missed opportunities have a new chance of becoming real. In a world that values efficiency over experience, tourism reduces travel to a zombie experience.

Marc Böhlen (SUNY Buffalo)

Shawn Rider (University at Buffalo, Dept of Media Study)

Matt Baldwin

The Pursuit of Happiness: Questions about agency for video games

The central concern of this paper is with the attribution/recognition of agency in non-human entities and potential consequences for understanding of human - non-human relations. The paper will attempt to raise questions relevant to this concern by examining the ways that some computer and video games represent agency within their narratives and in the activity of playing the games. To try to make the issues clearer, agency is viewed in relation to the kinds of happiness available in the game narratives and game play.

Robert Fanning (West Virginia University)

Session 2F: Encounters with Islam: Science, Mathematics, Writing

Room 108

Chair: Erin Labbie (Bowling Green State University)

Seeing Wonder in Everything: Islamic Neoplatonism and the Illustration of Nature in Late Thirteenth-Century Iraq

The Wonders of Creation and the Oddities of Existence by Zakariyya b. Muhammad al-Qazwini (d. 1283) is among the most often illustrated texts of pre-modern Islamic literature. Surviving manuscripts from the thirteenth to the nineteenth centuries, in Arabic, Persian, and Turkish, includes images of individual created wonders from the Angel Gabriel to the lemon to the evil-eyed sannaja beast. It is easy to dismiss these manuscripts as compilations of the weird and the wacky- the National Enquirers of their day. But Qazwini, a judge and professor of Islamic law, understood wonders as individual signs of a Neoplatonic creation, each separately pointing to God. This paper explores how Islamic Neoplatonism informs the illustration of wonders in the earliest of these manuscripts, and how the resulting images in turn reinforce a Neoplatonist understanding of creation.

Persis Berlekamp (University of Texas)

Drawing the Line, Dividing the Plane: Islamic Space and the Geometries of Ornament

Two twentieth century artists responded strongly to the example of Islamic art: M. C. Escher and Henri Matisse. Escher found a model for his geometric play of dividing and filling the two-dimensional plane. Matisse discovered in Islamic ceramics and textiles a richer sense of space than Renaissance perspective and its model of the perceiving subject. According to art historian Jacques Schneider, "The rule Islamic art obeys is the one contained in Verlaine's phrase, 'rien qui pèse, rien qui pose,' (nothing ponderous, nothing that poses)." It is a rule epitomizing the anti-perspectival and the nomadic. Perspective captures its objects in its grids and metrics, but the perceiving subject too is captured and pinned to a single point of view in a circumscribed space. For Matisse, the example of Islam, its play of unfolding, nomadic geometries of ornament, disrupts the tradition of perspective and opens the way to multiple spaces of perception.

Jim Swan (SUNY at Buffalo)

Desire and Science: Chaucer's Pseudo-Scientific, Quasi-Arabic Cosmology and Non-classical Thinking

The fields of literary studies and the "hard sciences" remain fairly separate in their endeavors, questions, and the modes in which they represent potential truths. A few select literary theorists are working today to question the notion of scientific thinking as it relates to literary study. For instance, in several of his texts including but hardly limited to *The Knowable and the Unknowable*, *Complementarity*, Arkady Plotnitsky reveals the potential for non-classical thinking within the fields of literature and the hard sciences. Similarly, Barbara Herrnstein Smith forwards notions of the anti-epistemological process of non-classical thinking in her recent work. What these two scholars do not overtly consider (and the theoretical foci that my paper will address) is the difference between the pre-modern and the modern or cross-cultural influences in their attempts to locate non-classical thinking within our "post-modern" moment. What are the roles of the mathematical and the incipience (or absence) of quantum physics as defined by Plotnitsky's reading of Bohr in Chaucer's pre-modern text? Centrally, how does Chaucer's translation of Messahalla's treatise render central Arabic cosmological understandings, and how does this transferal/translation of the text participate in or refuse Christianization? What does this then say about time and non-classical thinking for medieval studies and for contemporary theory?

Erin Labbie (Bowling Green State University)

Continental Breakfast

Fri, Oct 15, 7:45 am - 8:30 am

Session 3

Fri, Oct 15, 8:30 am - 10:00 am

Session 3A: Historicizing the Question of the Animal

Room 102

Panel Chair: Michael Lundblad (University of Virginia)

The Octopus on Trial: Frank Norris and the Nature of the Beast in Progressive-Era America

Recent work on "the question of the animal" has brought greater visibility to the often arbitrary distinctions we continue to make between human and nonhuman animals. But these distinctions have histories, I argue, and the nature of "animality" has shifted in significant ways over the course of American history. This paper focuses on the Progressive Era as a key moment in which "the nature of the beast" is put on trial, in a sense, in literary representations of figurative animals such as "the Octopus" in Frank Norris's 1901 novel. Allegorical scenes such as the Railroad/Octopus slaughtering a herd of sheep representing "the People" evoke nineteenth-century debates about criminality and the logic of criminal punishment: can the nature of a corporation's or an animal's impulses constitute, for example, mitigating circumstances that reduce the degree of accountability for a violent act? These kinds of questions are enabled by the shifting discourses of both "humanity" and "animality" at this moment, particularly once the treatment of animal and/or working-class victims becomes a central concern of "progressive" reform movements in the name of all that is "humane." The juridical outcome of these animal "trials" represents the birth of biological determinism as we know it today.

Michael Lundblad (University of Virginia)

Animal Exhibitions & The Production of Natural History in Post-Revolutionary America

Prior to his death from yellow fever in 1798, Dr. Elihu Hubbard Smith prepared an essay "Concerning the Elk" for the new journal *The Medical Repository*. The impetus for this essay came from his attendance at the exhibition of four elks in New York City with his friends, all of whom were involved in the construction of national institutions in the wake of the Revolution. Arguing that "the accounts hitherto published by naturalists... are confused and unsatisfactory," Smith's work corrected the "mistakes" of European scientists and helped found an American natural history. This paper shows how Americans' encounters with animals at public exhibitions helped produce knowledge of and literature about natural history while prompting the reconceptualization of human and national identities. It also engages recent theoretical work on the "question of the animal," suggesting the challenges and benefits of historicizing the discourses of the animal for those working in the emerging field of "animal studies."

Brett Mizelle (History & American Studies, California State University Long Beach)

Killing the Panther: The Tropics of Endangerment in Linda Hogan's *Power* and Contemporary America

Despite the far-reaching impacts of the Endangered Species Act (1973) and the "discourse of endangerment" it ushered in, surprisingly little attention has been devoted to the ways in which this discourse has altered human perceptions of nonhuman animals in areas as diverse as fiction and conservation biology. My paper begins to redress this gap by focusing on contemporary representations of one critically endangered species, the Florida panther, in texts ranging from license plates to Linda Hogan's distinguished 1998 novel *Power*. *Power* offers an unusually insightful critique of the Euro-American discourse of endangerment from the subject position of a young woman torn between scientific and indigenous epistemologies of "the animal" and governmental and tribal definitions of "endangerment." The novel demonstrates not just how tropes of endangerment migrate between seemingly separate fields of thought, but how ignorance of the workings of endangerment as a trope can produce serious environmental and cultural damage.

Bart Welling (English Dept., University of North Florida)

Session 3B: Visualizing the Body

Room 103

Chair: Christy Russell (University of California Riverside)

The Character of the Virtual Patient

Physicians and surgeons who previously touched real bodies with their own flesh-and-blood hands, are turning increasingly to computer simulations, to virtual realities, in order to learn procedures and techniques. In contemporary medicine, the body is now created electronically in surgical simulations in order to allow physicians and surgeons a "body" on which to practice procedures. This latest version of the body, the virtual patient, is intriguing in that it both advances ideas of what constitutes a human body and simultaneously challenges their veracity. If the nineteenth century worked to ensure that the incomplete body did indeed retain a sense of self by creating a prosthesis to mimic corporeal wholeness, then our present-day technology seems intent on doing precisely the opposite in deliberately fragmenting the body and challenging our understanding of the body and the prosthetic. This presentation reads the virtual patient as a character in the fiction, perhaps drama is the better term, of contemporary medical practice, while at the same time exploring the ethical dimensions, the character, of how this technology is complicating our understanding of the human.

Laura L. Behling (Gustavus Adolphus College)

Visualizing and Individualizing Risk during Pregnancy

"As a sacralized and fetishized image of endangered life," writes Sarah Franklin, Celia Lury, and Jackie Stacey in *Global Nature, Global Culture*, "the fetus stands in for the whole of life itself and symbolizes the future" (36). This iconography is enabled by technologies of visualization that facilitate representations of the fetus as an entity separate from, even at odds with, its maternal environment. In this presentation I will examine how and to what extent the move towards foregrounding risk management techniques in pregnancy handbooks correlates with the widespread adoption of fetal imaging technologies (such as ultrasound) and with the proliferation of images (such as Lennart Nilsson's photographs) that represent the fetus as an autonomous, vulnerable being. I argue that the ultimate effect of this focus on maternal risk management is to make the individual mother--rather than political, corporate, biomedical (etc.) institutions--responsible for the future sustainability of human life.

Marika Seigel (Penn State University)

Visualizing the Invisible: Representations of Sperm in Science and Art

This project explores visual representations of sperm as they are transformed by scientific developments and social and historical changes. Because sperm is not visible to the naked eye, the ways art and culture visualize it are mediated by the technologies of scientific representation. Cultural understandings of sperm are transformed throughout history as science reveals sperm as a tiny man in a seed awaiting nourishment, a noble warrior fighting its way to fertilize the egg and finally as a mere housing for DNA. As these scientific representations circulate throughout culture, artists react and respond to give sperm representations new meaning. Artists visualize sperm as a symbol for a fragile postmodern masculinity, an evil icon representing HIV and as part of a dialogue about reproductive technologies. Representations of sperm reveal the power of science to shape the way we visualize the invisible and the necessity of art to critically reinterpret these images.

Carrie Eisert (Wesleyan University)

The Spectralization of the (M)Other: An Examination of the Female Gothic in Orlan's Monstrous "Corpus"

Although many critics view French "Carnal Artist" Orlan's work as a "monstrous body" (pun intended), I seek to examine the ways in which Orlan's abjection of herself can be subsumed by the empowering, patriarchally transgressive realm of the Female Gothic. I will specifically explore Orlan's bodyscape throughout her surgery, "Omnipresence (where she acquires the forehead of Mona Lisa)," in order to argue that the grotesque imagery--the collapse of Orlan's flesh and blood signify the site of a Gothic center and haunting presence of a patriarchally threatening, spectral mother that suggests not only the horror of castration, but also compels the female body into a subversive feminine power. Both the Female Gothic and Orlan's plastic surgeries represent the female body's very abjection as a binary collapsing, boundary

destabilizing, body dematerializing and constructively rematerializing site of Luce Irigaray's notion of the empowering "feminine imaginary." Her body in flux represents her subversion of corporeal limitations, defiance of traditional restrictive gender and sexual identities, and presents a body that literally demonstrates a space where the "problematics of femininity" can be articulated, while simultaneously transcended.

Christy Russell (University of California Riverside)

Session 3C: Gaming Modes

Room 104

Chair: J. James Bono (SUNY University at Buffalo)

System Failures: *Uru: Ages Beyond Myst* and the Computer-Game Wilderness

The last fifty years have brought radical changes to the global environment. Rachel Carson, Bill McKibben, and many others have sounded the alarm over pesticides, greenhouse gasses, and acid rain. More recently, the toxic residue of obsolete personal computers has become an increasing environmental threat. This threat affects humanity's physical existence and American cultural existence. Even as the physical wilderness becomes increasingly fragile, the idea of wilderness remains an integral part of American culture. The centrality of wilderness in American culture is reflected in the popularity of computer games featuring inviting, idyllic landscapes. Games such as *Uru* offer a diversion from environmental ills, but the significance of their popularity goes beyond escapism. Drawing on the work of Jean Baudrillard, this paper will explore the relationship between environmental degradation and representations of wilderness in computer games. It will also ask what the popularity of digital landscapes suggests for an American cultural identity inextricably bound to notions of wilderness.

Amy Clary (University of Louisiana at Lafayette)

Digital Digs, or: Lara Croft replaying Indiana Jones. Archaeological tropes and "colonial loops" in new media narrative

New media studies have theorized the end of narrative in the "culture of the database", but also its transformations into interactive and spatialized configurations. Lev Manovich links the digital aesthetics of "spatial wandering" to the "American mythology" that constructs the subject as an explorer. My paper pursues this link by investigating the largely unexplored post/colonial imaginary of digital narrative. Analyzing the Lara Croft games and films in comparison to pre-digital stories of heroic excavation, I focus on archaeological narratives. Throughout modernity, archaeology has functioned as both an integral part of the colonial dispositif and a site of its virtual deconstruction, where identity is constructed from buried fragments. How is the archaeological story transformed by new media culture? Do its spatial narratives interpellate hybrid and mobile subjectivities of "Empire" (Hardt/Negri)? Or are the digital replays of colonial tropes more adequately described as new forms of imperialism?

Claudia Breger (Indiana University)

When the Reader Writes the Story: "unFiction," Pervasive Gaming, and Reader Response

"unFiction," or "alternative reality gaming," creates a new type of narrative which capitalizes on the pervasive and immersive characteristics of modern communications technologies. This paper will examine an emergent genre that exists in a unique space: one that allows the writer (or design team) and readers to communicate in real-time, breaking down the barrier between the two. The impact of this recursive narrative on traditional notions of reader-response theory is compelling. Such cyber-mediated narratives rely on the reader less as a consumer and more as an integral part of the story telling. The serialized, puzzle oriented plotlines of "texts" such as those unpacked in this essay (Dreamworks SKG's *The Beast* and Project Mu's *Metacortechs*) provide an unprecedented venue for this type of analysis: one which merits specific study as an indicator of narrative forms to come.

J. James Bono (SUNY University at Buffalo)

Session 3D: Science and Nature Writing: Rhetoric, Ethics, Pedagogy

Room 105

Panel Chair: Michael Bryson (Roosevelt University)

When Science and Story are Woven Together: Ecology, Native Wisdom, and Spiritual Insight in Robin Wall Kimmerer's *Gathering Moss*

When a literature course includes a book that teaches ecological principles, learning becomes an interdisciplinary collaboration. I will discuss my experience teaching *Gathering Moss*, a book in which bryologist Robin Wall Kimmerer connects the study of moss to larger ecological issues. My students, many of whom view science as objective truth based on direct interaction with the natural world, were challenged by the literary critic's perception that science is embedded in the dominant values and ideology of western culture. Kimmerer's book questions the assumptions of empirical science, explores the role of traditional ecological knowledge passed down through the oral tradition of native peoples, and brought to our discussion a spiritual element rarely addressed in the science classroom. Kimmerer weaves the science of mosses with the stories of mosses and in doing so, fosters discussions about ethics, about humility and respect, about the rightful role of humans in the natural world.

Janine DeBaise (SUNY Environmental Science and Forestry)

E. O. Wilson's Ethical Dialogues: Ecology, Biodiversity, and the Art of Argument in *The Future of Life*

Edward O. Wilson's *The Future of Life* is simultaneously a highly literate tribute to the diversity and adaptability of life, a damning account of species extinction and habitat erosion due to human activity, and an impassioned and persuasive argument for a science-based approach to addressing these and other ecological problems. Wilson's rhetorically-rich explication of ecological principles also inspires critical analysis of environmental issues, scientific methodology, and the uses of literature. The argumentative superstructure of *The Future of Life*--built upon a series of ethical dialogues--gives the book its pedagogical power. These passages, along with Wilson's shifting narrative persona (from studious naturalist to impassioned firebrand), not only model many of the critical thinking skills necessary for a basic "scientific literacy"; they also force readers to grapple with subjective and objective elements of ecological/environmental discourse, and stress the fundamental role of ethics in an ecological worldview.

Michael Bryson (Roosevelt University)

David Quammen's *The Song of the Dodo and the Conversation between Nature, Science, and Society*

David Quammen's *The Song of the Dodo* is characterized by a rhetorical engagement with some of the problems inherent in communicating a specialized science to a body of non-specialist readers.

Acknowledging that the language of science can seem arcane and inaccessible to the uninitiated, Quammen in part engages the reader as translator and teacher, trying to overcome the xenophobia that he imagines a typical reader might experience in the face of scientific jargon and mathematics. Quammen's rhetoric is idiosyncratic, humorous, and personal and is clearly rooted in his novelistic background. Adopting the fictional devices of narrative, character development, and metaphor, Quammen demystifies and humanizes scientists as persons, and he grounds the science itself in specific places so that science and scientists maintain a less abstract, real-world relationship to the body of popular readers who must be made to understand the effect of worldwide ecosystem disintegration and decay.

Karl Zuelke (The College of Mount St. Joseph)

Session 3E: Posthuman Identities

Room 106

Chair: Bernadette Wegenstein (The University at Buffalo)

Special Affects: Posthuman Ethics in the *Matrix* Trilogy

In terms of dialogue and narrative structure, the *Matrix* trilogy is often read as a humanist text, in which the human hero battles inhuman machines and wins through his human affects of love, hope, and choice. However, on the level of form (particularly special effects) we find a very different story. The machines that proliferate Agent Smiths ad infinitum for the trilogy's key scenes—the so-called "Burly Brawl" in *Reloaded* and the final duel in *Revolutions*—are also necessary for the hero's humanist victory. These scenes, and the aesthetics they manifest place what seems a human struggle for freedom in a posthuman/machinic space. This paper will describe a posthuman ethics, as suggested by the technologies of *The Matrix: Reloaded*, that is part and parcel of an aesthetic interaction between the organic and the machinic. This interaction, which leads to the augmentation of both spheres, is far from an abstract theory, but has, in *The Matrix*, already begun.

Benjamin J. Robertson (University at Buffalo)

Naked Spaces—Female Spectatorship in Jane Campion's *In the Cut* (2003) and Marina de Van's *In My Skin* (2002)

The purpose of my presentation for the 2004 SLS, "Naked Spaces—Female Spectatorship in Jane Campion's *In the Cut* (2003) and Marina de Van's *In My Skin* (2002)," is to explore the question of what nakedness can possibly mean in the age of internet-based communication, in an age, that is, when the skin can be bared, exposed via a medium that is paradoxically both utterly public while remaining strangely intimate. The thesis of the presentation is that what both films are grappling with is a transformation in the value of the skin, and specifically of the skin containing the female body, in an age when the power and position of viewership has been radically de-centered and pluralized as a result of internet technology and viewing practices. In different and yet compatible ways, these two films by women directors subtly shift the emphasis common to traditional cinematic perspectives on the female body, a shift alluded to in both titles: the "in" of either a "cut" or the "skin" represents, from a more traditional perspective, an impossible position. How, in other words, can one in-habit a cut, or the border designated by the skin? Both films, I will try to demonstrate, deploy a viewing technique that undermines the essential duality of inner and outer that all metaphors for the skin as border of the body have always required.

Bernadette Wegenstein (The University at Buffalo)

Session 3F: Portrayals of Science in Spanish Literature

Room 107

Panel Chair: Cecelia J Cavanaugh SSJ (Chestnut Hill College)

Darwinism in Pio Baroja: *El arbol de la ciencia*

Baroja, having studied medicine before becoming a writer, was very familiar with ideas of Darwinism and decadence, both of which preoccupied him in his writing. In *El arbol de la ciencia*, we witness his belief in Social Darwinism coupled with a strange sort of nostalgia for another life and view of the world. I will be addressing this tension in the novel.

Rebecca Cherico (Villanova University)

The Image of the Scientist in Eduardo Mendoza's *La ciudad de los prodigios*

The paper deals with the relations between science, and scientists, and the socio-political events that reshaped Barcelona between the two Universal Expositions held there in 1888 and 1929. The subtext of the novel is the relation between scientific advances and socio-cultural "progress" as the city moves from a provincial 19th century town to a 20th century megalopolis, a transformation which mirrors a more general European movement into the 20th century. These changes are predicated on science and scientists, as demonstrated by Mendoza in his fascinating study of the relations between science and society in turn of the century Spain.

Jerry Hoeg (Penn State)

Francisco Quevedo's Hatred of the Medical Profession

During Francisco Quevedo's lifetime healthcare was essentially in the hands of three entities that somehow resembled the horsemen of the Apocalypse: the doctor, the barber, and the pharmacist. I will be using examples from Quevedo's *Suenos y Discursos*, that show the pharmacists as the "weapons suppliers" of the

doctors. Instead of saving lives, these three professions were responsible for many deaths. Quevedo even mentions in *Suena del Juicio* that it is mostly thanks to them that there was a judgment day. In *Suena de la Muerte*, Quevedo writes that the pharmacists' shops are purgatories, that the pharmacists themselves are hell, and the doctors are devils since they only seek evil. Their goal is to make the evil become good and the good evil. As to the barbers, they assist the doctors in their evil enterprise. Satan himself collects the barbers' utensils and keeps them on his dresser. Whatever progress science had made by this time, as far as medicine went, whether progress in saving lives or assuaging pain, is certainly not present in Quevedo's writings. Now the question is whether Quevedo had a personal vendetta against these men of science, or if this was the spirit of the times.

Beatriz Rivera-Barnes (Pennsylvania State University)

Scientific Lecture as Literary Performance: Pío del Río-Hortega's "Arte y artificie de la ciencia histológica."

This paper compares the poetics delineated by Pío del Río Hortega in his essay "Arte y artificie de la ciencia histológica" and Federico Garcia Lorca's observations expressed in his lecture on the poet Gongora and in interviews and prologues to several of his plays. Del Río Hortega's essay, originally written as a lecture, is framed as a dramatic work by its author who was intensely aware of his audience and the effect of his work on that audience. Comparing del Río Hortega's perception of himself as histologist and "playwright" with Lorca's work reveals the emerging understanding of the scientist's role in society and his vocation-- not only to discover science, but also to "uncover" its secrets for a larger public.

Cecelia J Cavanaugh SSJ (Chestnut Hill College)

Anthropology and the Pre-Human Other in Spanish Literature

Spanish authors such as Emilia Pardo Bazán, Azorín, Juan Luis Arsuaga, Antonio Pérez Henares, and Rosa Montero have written tales of prehistoric humans living in Iberia. Some of these cave people live in Pleistocene contexts; others secretly live in our modern world. In the stories set in the distant past, narrators establish focalizing characters who serve as anthropologists even though they themselves pertain to the groups they are studying. In the modern stories, the narrators use the discourse of anthropology to establish the otherness of both the prehistoric group and the modern humans to whom they are compared. In these sets of stories, anthropological discourse facilitates a social critique of contemporary Spanish culture, which finds itself both ultra-modern and prehistorically "other."

Dale Pratt

Session 3G: Pedagogies of Science

Room 108

Chair: Leslie Graff (University at Buffalo)

19th-Century Science and the Anti-Picturesque in American Nature Poetry

The American obsession with picturesque nature is evident in the work of nineteenth-century poets and painters who depicted only the most beautiful and majestic aspects of the natural world. By the late twentieth-century, however, anti-picturesque nature had become increasingly fascinating to various poets writing about roadkill, decaying garbage, slugs, bacteria, and other seemingly unappealing subjects. This paper argues that this increased valorization of lowly and unattractive aspects of nature originated when literary figures such as Emerson, Thoreau, and Whitman came under the influence of emerging scientific knowledge. Their interest in science led them to a closer observation of nature and to an ecological sensibility that acknowledged the importance of repulsive creatures and disturbing natural processes. Their sometimes conflicted rejection of the traditional association between poetry and beauty represents an early shift towards aesthetic and environmental values that would become more widespread in the 20th century.

Christopher Todd Anderson

The S[ci]ensational Novel: Victorian Intellectual Authority and Wilkie Collins

Wilkie Collins's sensation novel *No Name* relies heavily on *Jeremiah Joyce's Scientific Dialogues: Intended for the Instruction and Entertainment of Young People*, an 1807 manual popularizing science through a dialogue of instruction and home experiments to be performed by women and children. Although these scientific dialogues were questioned by mid-nineteenth century, Collins employs this model

of scientific knowledge to emphasize representation of science over the actual act of scientific inquiry to maintain intellectual authority in the composer of Socratic dialogues, i.e., authors, as opposed to scientists which are portrayed as merely repeating pedantic exercises. Collins knew he must demonstrate intellectual sophistication with the use of science, but he does so in a way that circumscribes science within the aesthetic arena of literary composition, limiting its claim to intellectual authority and maintaining the status of the author as cultural authority capable of inventing rather than rehearsing scripted activities.
Leslie Graff (University at Buffalo)

Session 4

Fri, Oct 15, 10:30 am - 12:00 pm

Session 4A: The Beast in the Garden in 18th Century France

Room 102

Chair: Anita Guerrini (University of California, Santa Barbara)

Animal Fables at the Court of Versailles

Paula Lee (University of South Florida)

Describing and Picturing Animals in the *Histoire naturelle*

From the beginning, relations between text and image in the multi-volume *Histoire naturelle, générale et particulière* (1749-67) were ambiguous, as shown by Alain-Marie Bassy and Elizabeth Liebman: Certain illustrations went well beyond and even against the written text in their evocations of exotic backdrops, legends, and religious doctrine; others offered jokes and self-reference to the artistically sophisticated. While the purposes and parameters of verbal description were discussed by both co-authors Georges-Louis Leclerc de Buffon and Louis-Jean-Marie Daubenton, little trace remains of what they or the principal artist Jacques de Sève saw as the role of pictures in natural history. Here I will argue that text and image became more closely connected as the series wore on, partly because of a lack of photogenic specimens and partly because Daubenton came to exercise more control over illustrations, but that artists such as de Sève retained a margin for creative playfulness.

Jeff Loveland (University of Cincinnati)

The Animal Machine in the Garden: The *Histoire des animaux* project

The early chronicles of the Paris Academy of Sciences are filled with rhetoric about the mechanization of nature, and Descartes's name is frequently invoked. Yet the Cartesian "animal machine" and all it implied is curiously missing from the Academy's major project on the natural history of animals. This paper will look at the published works associated with this project, including Claude Perrault's *Essai de physique*, to determine the rhetoric and the reality of the "animal machine."

Anita Guerrini (University of California, Santa Barbara)

Session 4B: Visible Fantasies

Room 103

Chair: Ann Millett (University of North Carolina)

Chair: Petra Kuppers (Bryant University)

Migraine Art: Different Ways of Seeing

My presentation will focus on art created by people experiencing migraines, and on some of the practices that surround the sharing of these images: self-help galleries, personal web-pages, competitions and sites by medical providers and pharmaceutical companies. My presentation will investigate how art is understood in this framework, and how these understandings impact traditional art practices. What is at stake in the medicalization of artists, and how do contemporary lay artists intervene in discourses about their experiences? At the heart, my presentation explores different knowledge frameworks and practices. Invisible bodily experiences, in this case pain, become visible as art historical conventions, fantasies emerging out of medical discourse, and personal metaphors and sense impressions come together in the highly imaginistic practices of migraine art.

Petra Kuppers (Bryant University)

Eclipsing the Frame: Diane Arbus's *Untitled* photographs of the Developmentally Disabled

Diane Arbus's photographic series, *Untitled* (1970-71) features institutionalized individuals with developmental disabilities, often misidentified in Arbus scholarship as "retardees" or "mental health patients." Considered some of Arbus's most exploitative work, the photographs stage the paradox of disability as hyper-visible as cultural spectacle and simultaneously socially invisible and traffic in the paradoxes of "disabled" as a visible identity marker. Individuals with developmental disabilities raise unique issues of disability and representation, exemplified in Arbus's images. Her subjects' impairments are not always displayed on the body, and they are institutionally segregated and socially isolated from the public realm. This paper argues that the human subjects of *Untitled* defy mainstream social framing for developmental disabilities while the images surpass the frames of conventional visual representations of these subjects. I will formally and discursively compare Arbus's photographs to clinical, artistic, and freak show images (particularly examples from nineteenth century ethnographic displays of "wild" men and human/animal hybrids), all of which make spectacles of developmentally disabled bodies. I argue that examining Arbus's images within and against various visual contexts liberates her subjects from restrictive representational framing; I interpret the developmentally disabled subjects of *Untitled* as performative agents who enact a disappearance from the conventionally exploitative and diagnostic gaze.

Ann Millett (University of North Carolina)

Transparent Bodies and Invisible Ideology: Women Writers on Scientific Imaging Technologies

Women's health issues have become increasingly visible through new imaging technologies targeted at women. While the newly visible status of women's health issues promises women greater access to less invasive medical diagnosis and treatment, women's health issues are often stripped from their feminist historical and political bases, and imaging technologies raise questions as to who is best qualified to create and interpret scientific images of women's bodies. Fiction represents a space for contemporary feminist writers to engage in this ongoing discussion. This paper focuses on Margaret Atwood's treatment of echocardiogram in "Bluebeard's Egg," Bobbie Ann Mason's exploration of mammography in "Third Monday," and Gish Jen's consideration of ultrasound in "Birthmates." Despite differences, each story employs scientific images as a metaphor for contemporary relationships and identity, and each story simultaneously exposes the importance of placing imaging technologies in individual, historical, and political contexts.

Angela Laflen (Purdue University)

From Voice to Song: Depression, Dialogue and Musical Form at the Workman Theatre Project

Since 1991, Toronto's Workman Theatre Project has created over twenty theatrical productions focused on mental health issues by combining the skills of professional theatre artists with its own members, artists who have received mental health services. In 2000, WTP produced *Joy. A Musical. About Depression*, its largest scale production to date. With a book written by Maja Ardal and lyrics by Joey Miller, the production was the culmination of a five-year dramaturgical process that involved company members, professional artists, mental health professionals and members of the public. Providing a primary focus for company performance training and dramaturgical effort from 1995-2000, this musical aimed to explore experiences, challenge stigma and highlight problems associated with depression and the use of anti-depressants. Artists involved in this process were committed to the idea of using musical form as a way of making the topic of depression more palatable to the public. This paper will consider how and why the company used musical form to achieve its aims. It will also reflect on the opportunities and problems posed

by this strategy. Research for this paper is based on interviews, performance analysis, archival material, and critical press.

Kirsty Johnston (University of British Columbia)

Session 4C: Latour and the Limits of the Human

Room 104

Panel Chair: Thomas Lamarre (McGill University)

Respondent: Hugh Crawford (Georgia Institute of Technology)

Distributing Agency

Latour is notoriously impatient with the intellectual bankruptcy of postmodern hermeneutics; the presumptive self-enclosure of the subjective, the earnest revelations and denunciations of "social constructionism," the historical disjunctions and bifurcated logic of critique, and the conflation of agency with human, or social being. In a recent meditation on the need for co-operation between research communities in these troubled times, Latour is more sanguine about these differences and reconsiders the question of "constructionism." But he notes two main obstacles - scientific fundamentalism and deconstruction - approaches whose "mutual ideal" is to reach "what has not been built at all by any human hand." This paper will ask why a notion of "constructionism" which doesn't aim to segregate natural truths from social interpretations requires the vigilant exclusion of any approaches, even those perceived to be politically odious and entirely mistaken. How is "the human" reconfigured in the distributed agency of this revision?

Vicki Kirby (The University of New South Wales)

Symmetry Breaking: Natural Social Forces and the Limits of Symmetry

Reiterating his welcoming gesture in "We Have Never Been Modern", in his more recent work Latour continues to extend the possibility for citizenship in the collective to nonhumans as well as humans. However, despite the important shift from an earlier liberal politics of inclusion to his recent embrace of a more radical form of democracy, including the ongoing contestation of who and what gets to be included in the collective, the nature of the proposed extension continues to raise questions of the limits of representation and of citizenship. What about those "humans" and "nonhumans" who won't stand for such a founding gesture? This paper considers points of instability as well as stability, and exclusion as well as inclusion, in the natural social force field of technoscience, suggesting a reconfiguring of "humans" and "nonhumans" in ways that are both more and less symmetrical than Latour's liberal democratic sociality.

Karen Barad (Mount Holyoke College)

From Contact to Tact: Magic and the "All" of Science

In the context of his first studies of laboratory life in California, Latour highlights the necessity of looking at scientists in the same way that the anthropologist looks at non-Western communities or tribes. Or rather, the anthropologist of science is to look at scientists in the way in which anthropologist mistakenly looked at tribes. For Latour agrees with the critique of the old anthropology that takes issue with the epistemological division between the West and Rest. Yet, rather than dismantle this divide (the Western mistake), Latour tends to invert it—the scientist becomes primitive, and primitive scientific, in roughly equal measures. Thus he returns to scenarios of 'first contact' such as the Spaniards with Amerindians, but to explore how each side conducted its experiments — to introduce symmetry into analysis. This paper will look at how Latour's symmetry operates. Central to the success of symmetrical analysis is a transformation of anthropology into diplomacy, of contact into tact, and more recently for Latour, of the West in Europe. Crucial then is tact and magic — a sense that the human can touch without touching, that things interact across distances.

Thomas Lamarre (McGill University)

Session 4D: Other Futures, Other Pasts: New Studies of American Literature, Science, and Society in the American Age, 1944-2004

Room 105

Panel Chair: Doug Davis (Gordon College)

Look Back in Wonder: Postmodernist Fabulation vs. The Bush Doctrine, 1944-2004,"

Doug Davis's paper analyzes the central role that fictional war storytelling played in the Bush administration's newly revamped National Security Strategy of preemptive war fighting and suggests how postmodernist ways of storytelling can help us understand national policies and technological systems of war making. Davis shows how popular and expert stories about nuclear terrorism work on the front lines of the war on terror as "strategic fictions" that give society epistemic access to threatening technological events that have never happened, but that nonetheless determine American global strategies such as the decision to invade Iraq. So how can one tell stories about nuclear and other kinds of mass terrorism now without reproducing the strategic-fictional logic of the war on terror? One possible answer, Davis suggests, may be to do what cold war authors such as Kurt Vonnegut and Thomas Pynchon did in their novels about World War II's bombing campaigns, *Slaughterhouse-Five* and *Gravity's Rainbow*: represent the warring past in an estranging way that reflects critically upon the warring present, and ultimately turn tomorrow's targets into questing, countercultural investigators within the geopolitical technological systems of terror and war. Davis argues that we need the same kind of fabulist historical storytelling today—and more.

Doug Davis (Gordon College)

The Nuclear Frontier: Evolution and Progress in American Nuclear Apocalypse Narratives,

In his essay, Patrick Sharp explores the connections between narratives of evolution and progress as they have emerged since Charles Darwin's time. He begins by examining common sense interpretations of nuclear war narratives that connect the fear of nuclear war with the fear of civilization "devolving" in the aftermath of an attack. Sharp then suggests that such interpretations fail to consider the powerful influence of frontier imagery in many nuclear apocalypse narratives produced in the United States. While devolution was certainly at the center of these narratives, Sharp contends, it was met by a particular version of evolutionary narrative developed at the turn of the century by men like Theodore Roosevelt and Frederick Jackson Turner. These historians popularized the notion of the "less evolved" frontier as a Darwinist proving ground, where white Americans confronted the savagery of the wilderness on its own terms. This return to the struggle to survive on the frontier was seen as something that was reinvigorating for Americans; as such, the frontier became a space where Americans improved themselves, extending their dominion in the march of civilization. In this sense, the confrontation with the savage was not a moment of devolution, but rather an essential step in the march of American progress.

Patrick Sharp (California State University, Los Angeles)

Galactic Suburbia: Housewife Heroines, Lady Scientists, and the Lost History of Midcentury Women's Writing,

Lisa Yaszek shows how science fiction provided American women with a vital source of narratives about gender, science, and culture during the decades that preceded the revival of feminism in the 1960s and the advent of an overtly feminist science fiction in the 1970s. Yaszek begins her presentation by reviewing how mid-century women writers merged the conventions of science fiction with those of romance, melodrama, and domestic tragedy to produce unique literary depictions of the most pressing issues of their day, including nuclear war, civil rights, women's work, and new developments in science and technology. Yaszek illustrates her claims with two antiwar stories by Judith Merrill, "That Only a Mother" (1948) and "Shadow on the Hearth" (1951). Merrill imagines how this terrible future might be prevented by a radical new figure: one that Yaszek calls the mater scientifica or "scientific mother." Characterized by both a natural concern for others and a learned, rational skepticism toward authority, the mater scientifica attests to the possibility of resisting military logic and building new kinds of community based on caring labor and a shared commitment to the well being of future generations. Yaszek then concludes that although such

stories may not be feminist ones per se, they anticipate the women's liberation movement by insisting that the personal is always already political.

Lisa Yaszek (Georgia Institute of Technology)

"What it Takes to Dazzle Us": The Role of Science in the Work of Alison Hawthorne Deming

In her 1998 essay, "Poetry and Science: A View from the Divide," for which she won the Bayer Award in Science Writing, Deming describes herself as an avid reader of *Science News*. She gleans from its articles anything "I might tuck into the nest of my imagination," although she understands that science and poetry differ in the way they use language. Yet they are both creative, each serving as a "means to study nature." She values science, but is not a scientist primarily because she believes that nature is better understood through the poet's subjectivity than by a strict adherence to science's objectivity. Filtering her work in part through Glen Love's recent call for nature writing to be more fully grounded in the sciences, my paper examines the nature of the "nest" Deming has built for herself, and how she applies its contents to both her prose and her poetry.

Richard Hunt (Delaware Valley College)

Session 4E: Narrating and the Network

Room 106

Chair: Paul A. Youngman (The University of North Carolina at Charlotte)

The Mythic Vision in Narrative of Aboriginal Songlines and Electronic Literature of Network Systems

This presentation, organized as a performance-based dialogue between the two presenters, ruminates on the dynamic human activity of storytelling and contrasts the protean characteristics of emergent forms of narrative promulgated by electronic networks with the biological network system of the Australian Aboriginal songlines. In doing so, the presenters examine within the systematic correspondences between the two, non-material, energetic substance of complexity and consciousness—that is, the rich awareness of self and other that allows for an exploration of the mythic vision expressed as narratives in radically different contexts. In keeping with the storytelling tradition, the presenters perform their work. Embodied in it are the theories underlying both oral and electronic narratives, as well as specific examples of both. Revealed through this presentation is the idea that the inter-relationships between art, technology, and consciousness emphasized by a meta-narrative comprised of both these complex network structures offer opportunities for sequential as well as merged experience in the reality of consciousness. As they show, despite the potential for "telematic networking of text" (Ascott, 190), consciousness apparent in the narratives of electronic networks remain largely a solitary enterprise, focused more on the experiences on the individual and self rather than the purposeful, communal fellowship demonstrated in the songlines.

John Barber (University of Texas at Dallas)

Dene Grigar (Texas Woman's University)

On the Web as Narrative

A decade ago it seemed that hypertext and/or hypermedia were revolutionary: new kinds of documents in a new kind of technological medium in which the relationships between authors, readers and texts would change fundamentally. But this has not happened, or not happened in the way many of us thought it would. Hypertexts and hypermedia continue to be produced; though the poetics of this new kind of narrative are perhaps still being worked out, it is already clear that the revolution in narratology, if it happened at all, happened somewhere else. The nature and structure of the Internet, or the narratology of the video game, are better illustrations of the impact of hypermedia than the more limited attempts of those who would still be "authors," in the codex book sense of the word; on the internet or in a video game, there are authors but only one "metareader/author," the browser herself, which makes the attempts of those who would compose hypermedia novels look misplaced. Who (we are still wondering) is the author, and what is narrative if the book, the internet and the video game can happily co-exist?

Barton D. Thurber (University of San Diego)

The Realization of a Virtual Past in Günter Grass's *Crabwalk*

In his 1999 Nobel lecture, Günter Grass declares narration to be "a form of survival as well as a form of art." He sets out to demonstrate this declaration in his novel *Crabwalk* (2002). The twist for Grass, the author who writes exclusively on his Olivetti typewriter, is that he includes the Internet as a means of narrative in his most recent work. This paper analyzes *Crabwalk* as a look at various forms of media—the oral memories of a fictional character, two historical monographs, two films, and a website maintained by a young Neo-Nazi—through which humans narrate the past, in this case the 1945 sinking of the *Wilhelm Gustloff*, a German KdF ship, by a Russian U-boat. The last medium, the Internet, is the focus of this paper as it serves as the central means of narrative development, as well as the single media that inextricably intertwines Grass's "historical reality," the sinking of the *Gustloff*, with his "fictional reality," the murder of a "virtual" Jew by an apparently "virtual" Neo-Nazi.

Paul A. Youngman (The University of North Carolina at Charlotte)

Session 4F: The Violence of Identity

Room 107

Chair: Sarah Dauncey

Narrative Logic and the Fantasy of Posthuman *Ekstasis* in Jeffrey Eugenides's *Middlesex*

Jeffrey Eugenides's novel *Middlesex* investigates how Edward Wilson's sociobiology and Richard Dawkins's selfish gene theory appear but ultimately fail to dislodge individual, human consciousness as the privileged center of narrative point of view. By treating the gene as a type of muse in the Ancient Greek mold, Eugenides's novel explores the potential for narrating a novel from the point of view of a posthuman, genetic agent that in the end controls the actions of the main character, Calliope. While Calliope synthesizes her, and alternatively his, own experiences through a rhetoric of *ekstasis*, the logic of the novel's plot ultimately nullifies this illusion of posthuman ecstasy and traverses the fantasy of control that might be called the defining characteristic of all posthuman discourse.

Mark Sander (Stanford University)

The Negotiation of Science and Modernity in the Work of Ashis Nandy and Amitav Ghosh

If there is one common theme that links up Ashis Nandy's diverse body of work, it is his sustained critique of modern science and secularism. Even though Nandy has been criticized for indirectly legitimizing right-wing agendas through his critique of secularism, he argues that the Hindu right wing movements in India are actually predicated on a framework of modernity, attempting to masculinize and modernize Hinduism. Nandy shows that it not necessary to draw exclusively on resources of western science and rationality to challenge oppressive traditions. He attempts to challenge the project of modernity through a creative (and critical) rereading of tradition. The work of the novelist Amitav Ghosh offers a complex response to the negotiation of modernity in the postcolonial context. In this paper, I argue that Ghosh's work also offers a sophisticated critique of modern science and secularism that parallels Nandy's work in interesting ways. Both Nandy and Ghosh seem to suggest that the secular modern nation state itself, demarcated by "shadow lines" as well as the markers of the modern state—dams, nuclear weapons, the rhetoric of progress and development—are associated with particular forms of violence.

Srikanth Mallavarapu (Georgia Institute of Technology)

The World that Speaks

The paper critically examines the existing relationship between the Christian and African ancestral - religious worlds. It traces whether there is any relationship between the two worlds. The latter is increasingly informed by traditional belief value systems, cultural symbolism, magic and mythology and seems to be threatening the comfort zones of the Western Christian World, which for years have tried to undermine and destroy the African religious belief system. The locus of the paper is my dual experience of being immersed in Western Christianity and its maiden of education while, at the same time, experiencing an ongoing process of *ukuthwasa*. Special attention is given on the conflict involved in the dual nature of the existential life experiences of *amagqirha-gqoboka* (i.e. indigenous diviners and Christian worlds). The question is: How does an educated and Christian person cope with her ancestral inherited gift of *ukuthwasa* in an environment dominated by Christian and education value systems?

Nomfundo Lily-Rose Mlisa (University of Fort Hare)

Session 4G: Number, Text, Artifact

Room 108

Chair: Anand Nukala

Authoring a Machine: Technical Critical Practice

I explore the proposal that technological artifacts, in addition to written texts, can be created as part of discourse in the study of science, and can be as valid a contribution as academic papers. Our concept of literature is intricately connected with the notion of authorship, but when thinking about science (and technology) authorship can be broadened to include the authoring of not only texts but technological artifacts too. To provide a framework for this discussion, I introduce the notion of "technical critical practice": a method of scholarship that incorporates the production of technological artifacts as part of process of scholarly discourse. I discuss the roles that building technology can and cannot play within critical discourse, acknowledge some difficulties with recognizing machine authoring in an environment focused on publishing the written world, and call for recognizing the potential of increased critical technological creation.

Joseph 'Jofish' Kaye (Cornell University)

Historiography as Reenactment: metaphors and literalizations of TV documentaries

I examine "past presents" in experimental historiographies (modeled on Haraway's naturecultures) as visible evidences that past and present cannot be purified one from another. Four experimental historiographies have interconnected investments in reenactment and pastpresents. Hopkins' (1999) A world full of gods and Handler & Gable's (1997) The new history in an old museum-- examine knowledge production in commercialized forms. My contrast of these prefers Hopkins'-- describing its own conditions of production under academic capitalism as Handler and Gable, several years earlier, cannot. Turning to Michael Barnes' NOVA series (1992-1997; 2000) Secrets of Lost Empires and (1994) "Science in American Life" at Smithsonian's American History, I argue that debunking academic capitalism and other forms of commercialized production depends upon modernist purifications unable to account for our current knowledge making practices. I work to recognize agencies in new forms--especially distributed agencies of television documentaries, real and imagined.

Katie King (University of Maryland)

Indeterminate Materiality, or XML as Cultural Theory

My paper will utilize the recent development of XML (Extended Markup Language) as a vehicle to theorize the role of the humanities in what Alan Liu (following Kittler) has recently called the Discourse Network 2000. I shall argue, drawing on a number of webart works (including Lisa Jevbratt's 1:1, I/O/D's WebStalker, Maciej Wisniewski's Netomat, and Mary Flanagan's [collection]), that presentation is intrinsically correlated with content, although not in a one-to-one or determinate pattern. What these works (and the humanities perspective per se) demonstrate is that the meaning of any encoded content cannot be separated from its presentation in some (though never this or that particular) material form. They thus instance the phenomenon of what I (extending Johanna Drucker's work) call "indeterminate materiality." On the basis of this demonstration, I make an argument for a humanities-based definition of information that departs from the purely technicist definition informing the Discourse Network 2000: rather than defining information in a way that decouples it from meaning and reception (as do Shannon's and Kittler's approaches), information must be understood to be the result of the processing of data (content) in a context (presentation) and through a receiver (embodiment).

Mark Hansen (Princeton University)

LOGIC, LANGUAGE AND MATHEMATICS

What can be said at all can be said clearly. - **Ludwig Wittgenstein**, 'Tractatus Logico-Philosophicus' Any form of intellectual activity requires, above everything else, supreme clarity in thought and expression. In the pursuit of truth, one needs to shatter the barriers of ambiguity and vagueness since the essence and beauty of creation is mathematical certainty of a sublime order. Logic and grammar are indispensable elements in philosophical work of any nature. Any treatise, dissertation or thesis devoid of these elements is essentially incomplete and ceases to be clear, objective and precise. This defeats the very purpose of philosophical inquiry. Pure Mathematics reflects the true embodiment of these elements and it is no

exaggeration that it represents one of the highest forms of philosophical and intellectual activity. This essay looks at the meaning and purpose of logic and grammar and it concludes with a brief description of the philosophy of mathematics.

Anand Nukala

Lunch on Your Own

Fri, Oct 15, 12:00 pm - 1:30 pm

CAE Discussion (Privately Organized)

The continuing legal difficulties of University at Buffalo Art professor and Critical Art Ensemble member Steve Kurtz (indicted first under the PATRIOT Act and later, when the first charges would stick, for mail fraud), should be a wake-up call for those concerned with the intersections of artistic, scientific, and humanistic discourse. When an individual, and subsequently groups (including CAE and publisher Autonomedia), can be so easily accused of threatening national security for research that is not “bona fide” according to politicians, organizations such as SLSA need to take notice. Please come to an informal discussion of the events surrounding the Kurtz case and their implications for the future of our scholarly and artistic endeavors. For more information regarding the Kurtz case, please visit

<http://www.caedefensefund.org/>.

Benjamin J. Robertson (University at Buffalo)

Session 5

Fri, Oct 15, 1:30 pm - 3:00 pm

Session 5A: Animal Studies/Other Studies

Room 102

Panel Chair: Teresa Mangum (University of Iowa)

Animal Studies and Disability Studies: The Case of Temple Grandin

The case of Temple Grandin confronts us with complex theoretical and ethical questions that can be brought into sharper focus by deploying stereoscopically two emergent fields of cultural studies that her particular case invites: Animal Studies and Disability Studies. Grandin, who reflects on her life with autism in her book *Thinking In Pictures*, argues quite compellingly that her experience has given her an unusually empathetic understanding—“a cow's eye view,” to borrow the original title of her book--of how non-human animals experience the world, one that has enabled her to design animal holding and processing facilities that are far more humane for the animals involved. At the same time, “My mind,” she says in one of her essays, “is like a web browser.” When we recall the privileged place of the visual in the humanist sensorium (a trajectory stretching roughly from the Renaissance theory of perspective to Foucault's panopticon), and the commonplace description of non-human animal behavior in terms of mechanistic, stimulus-response models (familiar since Descartes), the stakes of this spectacularly mixed metaphor--“I have a cow's eye view of the world but my mind is like a web browser”—come more fully into view. This paper will attempt to understand what we can learn from the case of Temple Grandin.

Cary Wolfe (Rice University)

The Melancholy Mammal: Scientific and Literary "Theories" of Animal Grief

Even as Victorians labored to classify animal species minutely, improve animal breeds, ensure animal protection, and house abandoned animals, they learned the cost of newly valuing their animal companions. Attachments did not die with the illness or death of a treasured family pet; love merely gave way to loss. In

an attempt to provide "scientific" justification for such intense emotion, numerous amateur and professional scientists alike undertook intriguing displacement strategies, seeking evidence for animal intelligence and emotion, and thereby presumably demonstrating that they as animals were worthy of human emotion. In this essay, I discuss key scientific studies, including Charles Darwin's *The Expression of the Emotions in Man and Animals* (1872), which explicitly argued that animals experience grief. I then look briefly at literary intertexts, from Ouida's weeper *The Dog of Flanders* (1872) to Anna Sewell's polemical *Black Beauty* (1877) to mournful poems and tales in *Dog Stories from the "Spectator"* (1895), edited by J. St. Loe Strachey, to suggest the ways science colluded with literature to legitimize the newly authorized grief readers had learned to feel for animal companions.

Teresa Mangum (University of Iowa)

They Eat Horses Don't They?

The subject's relation to the animal/other, Derrida has written, is "calculated" in the act of "eating well," [bien manger]. But what makes the other/animal good to eat, or even, edible? What does eating the animal/other do for the subject? This paper will address these questions to the mid-nineteenth century in order to understand why and how the French turned the very animal they had luxuriously groomed, pampered, and saddled, into meat. Following the debates that surrounded the legalization of horsemeat for human consumption in France in 1866, and placing them within the larger context of nineteenth-century representations of horses, I argue that the practice of hippophagie went hand in hand with an increasingly ambivalent attitude towards the subjectivity and apparent "kinship" of the horse, especially since the horse, in turn, seemed to point to the questionable subjectivity of certain "breeds" of humans.

Kari Weil (California College of the Arts)

The Arts of Death: Discourses of "Art" and "Anatomy" in Contemporary Displays of Dead Animals and Humans

This paper investigates the discourse surrounding the controversial work of Dr. Gunther von Hagens and his show "Body Worlds: the Anatomical Exhibition of Real Human Bodies," and compares that to responses to contemporary artistic work employing dead animal bodies, such as the work of Damian Hirsch. "Body Worlds" is an exhibit of more than 100 whole body "plastinates," or dead bodies preserved through a special drying process, artfully displayed in various everyday poses to reveal their dissected muscles, organs, tendons. Since opening in Germany in 1997, the exhibit has toured throughout Europe and in Japan, attracting an audience of nearly 9 million while generating extensive controversy. It is currently set to open in the U.S. The moral and religious prohibitions against the visible display of dead human as opposed to dead animal bodies are so strong that any such display activates multiple authorizing discourses to escape extreme social censure. In the case of "Body Worlds" critical and public discourses invoke the authority of both "art" and of "science" to circulate ideas of "beauty," "truth," and "knowledge."

Jane Desmond (University of Iowa)

Session 5B: Problematizing Pregnancy

Room 103

Panel Chair: Caroline Wiedmer (Collegium Helveticum, ETH, Zürich)

Pregnant Spaces and Monstrous Intrusions: Reading the X-Files Narrative

Motherhood, and specifically pregnancy, has often been perceived as monstrous in western culture. The pregnant body has been figured as a contradictory space of blurred boundaries—between self and other, between the individual and interrelated selves, between subject and object, between the present and the future. This bodily space that resists conventional categories also represents a potential deviation in the unfolding space of the patriarchal narrative that must be brought under control. Making pregnant women monstrous thus tries to delineate two different kinds of spatiality: the space of the body as it normalizes non-maternal bodies, and the space of story as it contains possibly dangerous narrative ruptures. *The X-Files* exhibits a fascination with the fetus and often locates the womb as the origin of the monstrous. Since the threat to patriarchal structures in *the X-Files* manifests itself in stories of a shadowy or alien paternity, with the accompanying possibility of an alien child, much of the anxiety about the intrusion of the extraterrestrial in this series is finally focused on the space of the mother's body and her potential to give

birth. However, the terms of the monstrous refuse to hold in the same way that the narratives that contain it resist resolution, and emerging images of maternity become central metaphors for the series' postmodern storytelling concerns.

Sarah Hardy (Dept. of English, Hampden-Sydney College)

Penetrating the Pregnant Body in Seventeenth Century Obstetrical Textbooks

In 17th century Europe, a spate of obstetrical texts written by male physicians suddenly hit the presses. These were nearly the first such texts, for the medical management of pregnancy and childbirth had previously been considered indecent and inappropriate territory for male doctors and medical institutions. The texts present themselves as addressed not to other male doctors nor even primarily to female midwives, but to pregnant female patients. I will argue that these texts inscribe a multivalent relationship between a male doctor-author and his female patients. While it is easy to read these texts as simply documenting the beginnings of male medical control over pregnant bodies, they also embody a genuine struggle to empower female patients with knowledge and the ability to participate in their own care, as well as to daringly subvert traditional gender roles and norms in the name of improved care and scientific progress.

Rebecca Kukla (Berman Bioethics Institute, Johns Hopkins University)

Out of Place: Motherhood and the Politics of Knowledge Production in Switzerland

Fewer than 2% of full professors in Switzerland are mothers who trained in Switzerland. This throws up questions relevant both to the conditions of knowledge production within Switzerland, and to the social significance of motherhood: What is the status of the maternal subject within society, if that subject is all but excluded from the arena of higher education? What are the implications of this narrative of absence for a system, which is attempting to instate equal opportunity within Higher Education? Finally, what are the power relations that keep the current mechanisms of inclusion and exclusion operating to maintain the status quo? I approach these questions by bringing three sets of broad ideas into play—ideas about performing gender, ideas about how we imagine, design and inhabit space, and ideas about how our performances and the space within which we perform tell stories that continually construct and solidify specific social identities.

Caroline Wiedmer (Collegium Helveticum, ETH, Zürich)

The Portrait (6 min video)

An inquiry into being the subject of a nude portrait, painted when the model was pregnant and in a distressed state, which is subsequently published in a book of cultural theory by an eminent scholar. Nancy Salzer (Brandeis University)

Session 5C: Mathematics and Imagination I: Pre-Modern

Room 104

Chair: Henry Turner (University of Wisconsin, Madison)

Counting Ourselves in Infinite Space: The Limits of Imagination from Thomas Digges's Infinity to de Fontenelle's Plurality

Hamlet famously insists that he "could be bounded in a nutshell and count myself a king of infinite space." In his *Prognostication Everlasting* (1576), the natural philosopher and mathematician Thomas Digges had imagined a more populous and less melancholy version of infinity: adding infinity to the Copernican model, he imagines that the fixed stars extend forever, "devoid of greefe and replenished with perfite endlesse joye," as a realm "habitable for the elect." If infinity, the uncountable, shifts from being an attribute of God to one of the cosmos in early modern natural philosophy, the example of Hamlet also suggests how infinity becomes a quality of the mind. These boundaries of physical space and human imagination intersect in Bernard le Bouvier de Fontenelle's *Discourse on the Plurality of Worlds* (1686). The *Discourse* offered readers a popularization of Copernican theories that also followed Nicholas of Cusa in supposing a plurality of worlds. This paper argues that the *Discourse* revises the traditional model of man as the measure of a countable, infinite universe by making the mind of woman the physical limit and boundary to the new infinite universe. Rejecting the anthropomorphism by which too many astronomers looked at the

stars and saw only themselves, de Fontenelle imagines the Marchionesse as a figure of radical otherness in order to suggest how acts of fiction make rather than obscure science.

Elizabeth Spiller (Texas Christian University)

The Art of Geometrical Poesis

Henry Turner (University of Wisconsin, Madison)

The Garden of Archimedes: The Poetry of Mathematics in Early Modern Europe

Before sharing his solution to the cubic equation with the solicitous Girolamo Cardano in 1539, Brescian mathematician Niccolo' Tartaglia embedded it in a poem. Finding poetry in the context of early modern mathematics raises questions as to the relationship between mathematics and literature in this period. As a first step in the investigation of these questions, this paper looks at a large sampling of early modern mathematical treatises and notes the kinds of poems present and the functions they served. Subsequently, the uniqueness of Tartaglia's poem becomes evident and elements of the peculiar nature of the early modern imagination surface.

Arielle Saiber (Bowdoin)

Session 5D: Nineteenth Century Science: Darwin's Contemporaries

Room 105

Chair: Kevin Reyes

Ernst Haeckel's Evolving Narratives

As Ernst Haeckel developed his scientific ideas, he steadily altered his portrait of his teacher, Johannes Mueller. Unlike Mueller's more physiologically oriented students, Haeckel adored Mueller's comparative anatomy and marine biology, taking Mueller's studies of radiolaria as his scientific point of departure. In Haeckel's early works, he mentioned Mueller mainly to cite specific anatomical studies, but his references to him began to change after his enthusiastic adoption of evolutionary theory in the mid-1860s. Haeckel's embrace of Darwinism set off an extended process of *Nachtraeglichkeit* (Deferred Action) in his history of science which caused him to depict Mueller as endorsing evolution in retrospect. An admirer of Cuvier, Mueller never believed that species evolved, so this narrative maneuver required considerable agility on Haeckel's part. A close analysis of the way Haeckel changes his portrait of Mueller over time reveals how markedly scientists' current perceptions of their own work can shape the stories they tell about science's history.

Laura Otis (Max-Planck-Gesellschaft)

Chance as a Mechanism for Progress in the Determinist Narratives of Francis Galton and Frank Norris

A decade after Charles Darwin published *The Origin of Species* (1859), his cousin Francis Galton, notorious today for his contribution to eugenics, argued in favor of an anti-gradualist theory of species development that allowed for sports or chance macromutations as a mechanism for species change. This paper proposes that this aspect of Galton's theory of heredity served as a remedy to his law of regression to the mean, which holds that progeny revert to species average rather than retain and pass on all of the hereditary characteristics of their parents. In reading Galton's theory as a narrative, and using Frank Norris's *McTeague* as a demonstration, this paper examines the narrative effect of the law of regression on the grand narrative of Progress and the role of chance as a mechanism for change in narratives commonly construed as rigidly deterministic.

Christy A. Cannariato (University of California, Santa Barbara)

Reforming Oxbridge and Refining Science: *The Principles of Geology* in Context

In this essay, I argue that Charles Lyell's *Principles of Geology* (1830-33) is best understood as part of a knowledge project aimed to assert authority on behalf of a particular kind of knowledge producer and knowledge product. The Huxley-Arnold "science and culture" debates are legendary. Yet well before these debates, Lyell called for the separation of the spheres within the English universities, the British Museum, and other institutions. Lyell advanced a new model for the organization and study of the various

knowledges, beginning with the stark demarcation of natural from other cultural knowledge, including the fine arts and literature. Lyell continued by proposing a division within natural knowledge itself, based on his version of "uniformity in nature." Uniformity, I argue, was first and foremost a criterion for demarcating 'scientific' from other kinds of inquiry.

Michael Rectenwald (Carnegie Mellon University, English Department and Robotics Institute)

Session 5E: Intelligence and Information

Room 106

Chair: Shay David (Cornell University)

Ubiquitous Intelligence Systems: Philip K. Dick and the Ambient Digital Reconstruction of the Bicameral Mind

This paper initiates a critique of recent scientific and speculative work in the field of "ambient intelligence." While companies like Philips and Microsoft couch their descriptions of "smart environments" in the calming imagery of household routine, ambient intelligent systems in fact domesticate states of consciousness so bizarre that I deem them forms of psychosis. I propose to establish the degree to which developments of ubiquitous computing systems resonate with scientific, historical, and artistic accounts of schizophrenic disorders as encountered in literature, film, sound design, neurophysiological-based psychiatry, media theory, and religious studies. Two key eddying points will be the works of Philip K. Dick and Julian Jaynes's theory of the bicameral mind. I push Jaynes's work in the direction of media theory through the filter of Dick's VALIS novels, concentrating on the struggle to define experiences of immersive intelligence as potential signs of divine intervention, extraterrestrial contact, or mental collapse.

Trace Reddell (Digital Media Studies, University of Denver)

"Frontal Assault on and English Writer": Codework, Information, Poetics

The recent interest in "codework" focuses on intersections of humans and formal systems. A "minor" tradition of codework emerges from artificial languages and cryptography, on the one hand, and experimental poetry on the other. For example: in theorizing information, Claude Shannon created linguistic approximations of data flows, using methods later adopted by procedural poets like Jackson Mac Low. Recent critiques of information theory (notably Hayles') identify a dematerialization and disembodiment typical of posthuman cyberculture. In fact, Shannon's codework occurs at interstice of systems and bodies, at the (non)intersection of the range of possible messages with the singularity of specific messages. The cryptographic and military context of Shannon's arguments makes clear the strategic value of this event: the subject imbricated in data security and information multiplicity. Lacan wrote, after reading Shannon: "we can only speak of code if it is already the code of the Other."

Sandy Baldwin (West Virginia University)

An observation of the 'information revolution' through Walter Benjamin's critical concepts of progress

In this paper, I draw upon Benjamin's Theses on the Philosophy of History and extend his conceptual critique of 'progress' to look at contemporary technological shifts and their perception as 'the information revolution'. The critique of linear progress is at the heart of Benjamin's critique of historical materialism and his notion that the future holds salvation while the past offers redemption. History, Benjamin claims, is the subject of a structure whose site is not homogeneous empty time, but time filled by the presence of now. In our time, concepts of progress have come to be intricately conceptualized around advances in information technologies that are so rapid as to leave analysts and technologists alike grasping for words. I offer a critique that analyzes the ways in which time is ostensibly compressed and try to show how conceptions of time play out in the continuum that runs between redemption and salvation.

Shay David (Cornell University)

Session 5F: Ethology, Ecology, Ethnicity and Science

Room 107

Chair: Perry Myers (Albion College)

Beyond Darwinism: Chicana/o Literature & Modern Scientific Literary Analysis: A Biographical, Historical, and Interdisciplinary Reappraisal of the Literary Works of Josefina Niggli and Oscar Zeta Acosta

Since the 1960s, Latino and non-Latino critics of Mexican-American (Chicano), Puerto Rican-American, Cuban-American, and other U.S. Latino Literatures have applied theoretical tenets from postmodernism and cultural studies to proffer ethically mindful critiques of racist and sexist American political and social structures portrayed in U.S. Latino Literature. Two brief exemplary interdisciplinary reappraisals of the literary works of Josefina (Josephina) Niggli and Oscar Zeta Acosta showcase the valuable contributions post-Darwinian scientific literary analysis affords contemporary literary critics. A key point addressed in this paper is the position that a fully interdisciplinary modern scientific literary analysis of Minority Literatures should not be viewed as a dangerous critical act inherently antithetical to the underlying humane premises of postmodernism and cultural studies, but as a valuable critical addition to contemporary literary discourse.

Ervin Nieves (The University of Iowa)

Indigenous Ecology, Gender, and Race in Menchú's *Me llamo Rigoberta Menchú (I, Rigoberta Menchú)*

In contrast to the number of ecological studies devoted to North American and European literature, there are few ecocritical or ecofeminist analyses of Latin American works, whereas my paper applies both an ecocritical and ecofeminist framework to Menchú's Nobel Prize winning, testimonial narrative. I demonstrate that the treatment of women, minorities, and nature is not only an important leitmotif in this text by an Amerindian, but also that these aspects are interrelated. Menchú overcomes discrimination, sexual harassment, poverty, and political persecution to speak out against the genocide of her people and in favor of the Maya-Quiché's sacred, biocentric interrelationship with nature and all beings. I show how an ecocritical and ecofeminist approach that takes into account concepts examined by Glotfelty, Branch, Warren, and Legler (among others) illuminates overlooked aspects of Menchú.

Alicia Rivero (University of North Carolina at Chapel Hill)

World-Visions Without Colonies: Rudolf Steiner's Orientalism and German Cultural Identity

Rudolf Steiner (1861-1925), founder of Anthroposophy and the Waldorf schools, is one of many German intellectuals, who have turned to the Orient in pursuit of poetic and philosophical inspiration, and religious rejuvenation. In my paper I argue how Steiner's turn to the East is an attempt to reconstitute religious norms as a modernized, secular religion, and show how Steiner's thought manifests a different kind of colonial discourse than one finds in state-oriented Orientalism. As a result, Steiner's analysis of the *Bhagavad Gita* can be approached most likely as a source for redefining a German national identity not necessarily tied to visions of the Enlightenment state and a reconstituted understanding of human beings. Though Steiner was certainly a well-meaning humanist and would-be humanitarian, his orientalism selectively interprets and recontextualizes cultural meaning with biased discursive purposes and thus naturalizes a colonialist world-vision in a more subtle way than assumed for Western colonialism.

Perry Myers (Albion College)

Session 5G: Poetry and Science: 18th and 19th

Room 108

Chair: Scott Levin (Fordham University)

Couplets and Eighteenth-Century Science: A Much-Abused Poetic Alliance

Why does the appearance and disappearance of popular science in poetry of the long eighteenth century coincide with the rise and fall of the "heroic" couplet? Partly enlisted as a vehicle for the credibility and promotion of Newtonian natural philosophy, the couplet endures in the last half of the eighteenth century in educational media well after its literary vogue ends. The form's awkwardness in the hands of its late practitioners, including Erasmus Darwin, effectively terminates its use altogether. But the "failure" of the couplet for popular science also demonstrates the ways in which it resists the common critique, from

Wordsworth onwards, of its closed ideology. This paper examines a trajectory of the eighteenth-century didactic couplet to probe, in the words of Jeffrey Plank, its unique ability "to formalize the social and ethical consequences of scientific inquiry," and its cultural role in preserving a discursive space for increasingly repressed voices and speculations.

Paul Fyfe (University of Virginia)

Chubby Cheeks and the Bloated Monster: The Politics of Reproduction in Mary Wollstonecraft

In *Vindication of the Rights of Woman*, Mary Wollstonecraft, drawing on obstetrics and midwifery, overlays English political anatomy with the female anatomy, couching the health of the state in terms of the reproductive health of its women. For example, Wollstonecraft draws on medical literature, both popular and professional, when she argues that licentious behavior leads to infertility and miscarriage. Sensualists either "destroy the embryo in the womb" or produce only "half-formed being[s]," both of which have an "equally fatal effect on population and morals." Further, her arguments in favor of breastfeeding find support in medical texts that advocated the health of mother's milk and the dangers of wet nurses. For Wollstonecraft, breastfeeding, synonymous with good citizenship, creates the "chubby cheeks" of a healthy English future, a direct contrast to the "bloated monster" of tyranny that sickens its women and deforms its children.

Diana Young

Disillusionment in London and Godwin: Wordsworth, Reason, and Poetic [de]familiarity

The schism between the scientific and the poetic is a clash as old as thought itself. Plato was the first to initiate this split when he threw the poets out of his Republic. Yet, the history of John Stuart Mill—as he dictates in his Autobiography—illuminates the growing gap between the scientific/analytic and the imaginative/poetic. During Mill's adolescence his father's strict scientific and rational discipline led to a psychological and spiritual breakdown and it was only through the verse of the early Romantic poets that Mill was able to recover stability of thought and character. In this paper I am going to address just what exactly the primary Romantic poet—William Wordsworth—was able to find in the imaginative that reason and science lacked. I am going to focus on Wordsworth's own personal crisis as documented in *The Prelude*, the disillusionment he finds in 18th century Godwinian Reason, and his subsequent recovery through poetry.

Scott Levin (Fordham University)

Session 6

Fri, Oct 15, 3:30 pm - 5:00 pm

Session 6A: Livestock

Room 102

Chair: Karen Raber (University of Mississippi)

Judging the Formation of Beast's Flesh

The projection of human desire onto the beast is evident in British animal portraits of the period as well as breeding practices. This talk will explore the body of cattle as bred by Bakewell--the father of contemporary animal breeding--and imagined by artists of the 18th and early 19th century from Stubbs to Boulton to Weaver and Ward. The corporality of cattle provide a unique surface; breeding and portraiture use this surface to enframe the animal; however, if cattle portraiture is to escape enframing it is through the purity of the illustration's surface. The animal's large abstract square mass interrupts linear perspective and offers an area for contact with the real. Unlike human interiorization, the cattle body projects itself onto space and maneuvers with its corporality. Humans can come to know the world of the animal through their contact with the surfaces of corporality where there is now appeal to human power of language making and worlding.

Ron Broglio (Georgia Institute of Technology)

Naming Animal Bodies: Metaplasms and Early Modern Livestock

A key trope in Donna Haraway's *Companion Species Manifesto* is her extended use of "metaplasms": "I use metaplasms to mean the remodeling of dog and human flesh, remolding the codes of life, in the history of companion-species relating." In this essay, I want to launch myself from Haraway's provocative consideration by considering the process by which a particular breed of animal is invented as an embodied presence, a cultural metaphor, and a named entity. The metaplastic emergence of the "thoroughbred" is a story of origins occluded by a more dogmatic story of origins: while a gradualist narrative of emergence, dissent, and consolidation illuminates contested zones, within which a particular model of triumphant "Englishness" competes with itself to announce its own triumph over an Oriental "other" (impossibly redefining hybridity as purity), it simultaneously disowns itself in the service of another narrative that announces a stabilizing myth of paternal lineage. Re-examining the history of *The General Stud Book* enables us to reconsider how stories of race and nation, nature and culture are encoded in the practice of naming animals, both at the level of breed and individual.

Richard Nash (Indiana University)

A Horse of a Different Color: Nation and race in William Cavendish's Horsemanship Treatises

In his *General System of Horsemanship* (1734) William Cavendish, Duke of Newcastle, scoffs at his contemporaries' foolish belief that they can read a horse's temperament from the color of its coat; Cavendish instead espouses a more rational means for evaluating horses--one must, he suggests, ride the animal to know its character. Cavendish's rejection of superstitious criteria for choosing horses is a glancing rebuke to his English and Continental precursors in the field of horsemanship. In short, Cavendish's comments on training horses are also a discourse on national identity and class identity; subtly suggesting the superiority of the educated rather than natural horsemen, of the French as opposed to the Italian tradition, and ultimately of the English tradition Cavendish hopes to found with his own treatise. At the same time, Cavendish brings race and nationhood into dialogue. In this essay, I will suggest some of the ways that Cavendish's horsemanship treatises articulate a sense of national and racial difference, and assert a specifically English national identity in their negotiations with their precursor and contemporary texts. Not only do his works attempt to redefine how England will distinguish itself as a nation of horsemen, but they also explore England's place in the larger world of foreign nations which produce the animal's horsemanship.

Karen Raber (University of Mississippi)

Session 6B: Representing Contagion

Room 103

Chair: Kirsten Ostherr (Rice University)

Epidemiology

The widespread trials of a polio vaccine in the early 1950s made viruses good copy and introduced a general readership to the intricacies and mechanisms of one of science's newest discoveries. While viruses first became visible to researchers in the early 1930s, it was the media campaign around the Salk vaccine that prompted their large-scale public debut. This coverage coincided with the most dramatic Red Scare in the nation's history. My talk takes as its starting point the suffusion of the language and imagery of virology and Cold War ideology; I think of it as an exchange of metaphors, a conceptual recombination that takes place in popular media, from the mainstream press to popular novels and films. In "Epidemiology," I will focus on a story that was told and retold repeatedly in this period: *The Invasion of the Body Snatchers*. I will focus especially on the 1978 version, which, as I will demonstrate, is preoccupied with the theme of visual and narrative precedence: how the media affect what people see and experience by circulating certain images and stories. *Invasion*, as I will argue, shows how disease works as an implicit underlying threat that surfaces indirectly through familiar images and narratives and how epidemiology becomes an important way of understanding and imagining a range of cultural threats.

Priscilla Wald (Duke University)

Bioterrorism/Bioterrorism

The public health crisis provoked by the spread of anthrax through the U.S. postal system in the fall of 2001 was compounded by a representational crisis that plagued mass media depictions of the spread of contagion. The threat of contamination by invisible spores of the deadly bacteria rapidly seemed to become universal; the symbolic function of the primary targets (television and print journalists and politicians) was radically democratized by the simple fact that almost everyone in the country receives mail. This omnipresent quality was exacerbated by the fact that the familiar conventions for saturation coverage of a national crisis failed in the face of the invisible threat. Unlike the intensely graphic and seemingly endless loop imagery of the twin towers collapsing, the appearance and potential spread of anthrax utterly lacked an arresting visual image. But just as the invisibility of anthrax prompted emergency containment procedures on the part of public health personnel (who searched frantically to locate new and residual sites of infection), the absence of a clearly identifiable iconography of anthrax drove the news media to undertake their own (unsuccessful) search for easily reproducible signs of contagion.
Kirsten Ostherr (Rice University)

Session 6C: Mathematics and Imagination II: Modern

Room 104

Panel Chair: Arielle Saiber (Bowdoin)

Math as Fiction and Fiction as Math

Marjorie Senechal (Smith College)

Mathematics at the Limit of Imagination

Dien Ho (University of Kentucky)

Whitehead's poetical mathematics of organism

Isabelle Stengers interprets Whitehead as following the spirit if not the letter of mathematical practice in developing his speculative philosophy of organism and unbifurcated nature. I tease out a set of math-poetic figures from Whitehead's *Process and Reality* in order to understand how Whitehead constructs a theory of the world that prehends, feels, and becomes social. My principal questions are: How did Whitehead construct his philosophy of process and organism on mathematical intuitions, yet retain all the living qualities of the unbifurcated world? To what degree and in what manner did he play as a mathematician would play with concepts? Whitehead responded simply and remarkably to some of the most provocative mathematics and mathematical physics of his day: set theory and general relativity. But did he respond too simply in some respects, perhaps? I will try to play out Whitehead's speculation using lures made from measure theory and topological dynamical systems.

Sha Xin Wei (Georgia Institute of Technology)

Session 6D: 19th Century American Literature

Room 105

Chair: Anne Sheehan (UCLA)

Men That Are Used Up - Gendered Technomorphoses in the Shorter Narratives of Edgar Allen Poe and Herman Melville

Taking its cue from what Gilles Deleuze and Félix Guattari have called the 'machinic', my paper seeks to examine the complex interactions of body, machine, and gender in Edgar A. Poe's "The Man That Was Used Up" and Herman Melville's "Bartleby, the Scrivener." It will be explored how the central issues of human agency and representation are figured and negotiated through 'gendered' images of technological transformation and automatization. As I wish to show, the processes of becoming-machine depicted in the stories are subtly mirrored and furthered in intricate figurations of becoming-woman and becoming-imperceptible; figurations revising classical mechanist visions of the machine and pointing to a larger

"machinic phylum" that promotes a conception of the machine "which encompasses all of its aspects: technological, biological, informatic, social, theoretical and aesthetic" (Guattari *Chaosmosis* 107).

Leyla Ercan (Friedrich-Alexander University Erlangen-Nuremberg)

Nathaniel Hawthorne and the Art of Biology: Approaching 'Life' as Canvas or Writing-Pad

The President's Council on Bioethics was instituted in 2001 and held its first meeting in January, 2002. The 'assigned text' for its members that first meeting was Nathaniel Hawthorne's short story, "The Birthmark," used by the Council Chairman Leon Kass to demonstrate the dangers in attempts by science to 'rewrite' nature and of science's abuse of its power. However, Hawthorne's text may not be an unambiguous testimonial to this danger, and can be read as an avowal of the artistic merit extant in at least the biological sciences, rather than as a denunciation of science that is 'disrespectful' to the integrity of nature. This paper will elaborate on the theme of biological life as canvas or writing-pad in "The Birthmark" and an additional Hawthorne story, "Rappaccini's Daughter," as well as touch on the proliferation of this theme in contemporary literature and other art forms. From the point of view of both a cultural theorist and a biologist-in-training, and drawing on the work of Donna Haraway and the self-professed 'transgenic artist' Eduardo Kac, among others, I will investigate the potential merit and shortcomings of conceiving genetic or biological 'interference' as art.

Ben Hixon (Middle Tennessee State University)

"As potent as a charm": The American Homeopathy Movement in Hawthorne's "Rappaccini's Daughter"

My paper, part of a larger project on the relationship of antebellum fiction and medicine, examines Nathaniel Hawthorne's short story "Rappaccini's Daughter" as a response to the epistemological and spiritual claims of the medical doctrine of homeopathy. While other critics have noted that Hawthorne's portrayal of the story's two quarrelling doctors, Rappaccini and Baglioni, was influenced by the growing controversy between regular and homeopathic physicians in the 1840s, I argue here that Hawthorne's engagement with homeopathy was much more searching than has been previously acknowledged. For Hawthorne, homeopathy's claims to operate on the body's "vital force" and its links to Emmanuel Swedenborg's theories of correspondence made it an ideal surrogate for a covert attack on Emerson's "Nature." Moreover, Hawthorne uses the story's relationship between Beatrice and Giovanni to explore the dynamics of his new marriage with Sophia Peabody, an invalid and homeopathic patient whom he claimed to have cured with his love.

Anne Sheehan (UCLA)

Session 6E: New Media: Music and Poetry

Room 106

Chair: Lori Emerson (SUNY Buffalo)

Resisting Musical Linearity: Swans' *Soundtracks for the Blind* and Deleuze and Guattari

Before the invention of sound recording technology, music did not have a frame from which it could deframe itself. An act of deframing and resisting linearity was limited to works of art with a visible frame such as painting, cinema, and even the literary page. It is the act of deframing that allows music to oppose linearity and a rigid sense of beginning and ending that the technology of recorded musical media, in the process of playback, impose. In my paper I will show how the album *Soundtracks for the Blind*, by the avant-garde Rock group Swans, is successful in deframing itself from the technology of the compact disc player and compact disc, thus resisting linearity. Utilizing theories developed by Deleuze and Guattari in both *What is Philosophy?* and *A Thousand Plateaus*, I make visible the structural components allowing *Soundtracks for the Blind* to deframe itself and resist linearity.

Don Anderson (Western Washington University)

Books on Tapes: Popular Aesthetics in Contemporary German Literature

Books on Tapes: Popular Aesthetics in Contemporary German Literature Music and literary production intersect throughout contemporary German novels by utilizing the aesthetics of popular cultural technologies within the narratives. This paper examines the idea and manifestations of the mix tape in contemporary German literature as various systems that are simultaneously secret and open, artificial and

real. The mix tape, as a compilation and selection of songs put into the linear structure of the audio cassette, serves as a metaphor and methodology of self-creation and deception within the narratives. Mix tapes are the characters' dreams and self-representations made concrete, as their authors construct idealized versions of themselves in order to further their social image and relations. The tapes and their function in the novels provide different models for the intersection of narrative, technology, consciousness and artistic production to show that relations to consumer technology effectively determine the narrative structures and literary aesthetics.

Geoffrey Cox (University of Washington)

The Difference That Makes a Difference: The Liveliness of Language in the Digital Poem

Building on ideas I explored in last year's SLS paper, I argue that as an initial step toward classifying and interpreting digital poems that flicker, shift, are utterly contingent, and whose "behavior" has not yet been adequately accounted for, one can begin with the premise that the cultural trend toward the mathematicization of writing means that many poems—digital as well as paper-based—that are kinetic and/or generated appear to model themselves on thinking that is based on Euclidean and/or non-Euclidean principles. Using these mathematical principles as my guideposts, I attempt to map out an alternative literary history with a defined poetics that is in direct dialogue with developments in math and science, one that ultimately can account for a variety of paper-based and digital poems that are kinetic and/or generated; poets I touch on include concrete and kinetic work by Wallace Stevens, Eugene Gomringer, Susan Howe and Maria Mencia and generated work by Raymond Queneau, Simon Biggs and John Cayley.

Lori Emerson (SUNY Buffalo)

Session 6F: Alchemy, Metals and Magic

Room 107

Chair: Sabiha Ahmad (University of Michigan)

Machiavellian Magic in the "Mandragola"

Is it conceivable that Machiavelli dabbled in black magic? Was the father of modern statesmanship and governance also, behind closed doors, practicing with potions and spiders? By means of an allegorical reading of Machiavelli's "Mandragola", this paper will explore a new vision of Florence's most (in)famous political theorist: Machiavelli as magus. Utilizing a citation from Giovanni Michele Savonarola's "De Urinis", Machiavelli intentionally pokes fun at the Medici family's arch nemesis, the Savonarola family. The citing of Savonarola's medical treatise in the "Mandragola" serves both an allegorical and didactical function for the Medici: It suggests through a pun that in order to reclaim the lost heart of Florence, Lorenzino de'Medici must take on qualities of both a Florentine "Medico", qualities then attributed only to the Savonarola, and also those forever revered qualities of the Florentine "Medici". In other words, Machiavelli suggests Lorenzino disguise himself in an artful sort of statesmanship that has at its base the metaphorical "potion" made of the mandrake, as described in Savonarola's medical treatise.

Geoffrey Neal Cassady McTighe (University of North Carolina at Chapel Hill)

Mother Earth: Images of Women, Plants, and Botanical Alchemy

While the alchemists' claims to transmute metals are better known today, plant work in alchemy was equally important and widely practiced in early modern Europe. Books of alchemical secrets offered practical recipes to capture and refine the healing virtues of plants in the natural world. Practitioners used alchemical processes, especially distillation, to produce natural medicines, cosmetics, and domestic products from plant, animal and mineral products. As the sixteenth century progressed, Paracelsus's quest to adapt alchemical precepts for medical purposes gained influence in medical circles and his experiments with metallic remedies also had significant impact. This paper will explore ways in which images in alchemical manuscripts and early printed books reveal the connections between nature, alchemy, and medicine within the increasing masculine biases of the medical profession. It will examine allegorical images of "Nature," as well as representations of plants in alchemical images, women and plants in medicinal gardens, and women within early modern pharmacies.

M. E. Warlick (University of Denver)

Essays and Assays in John Pettus' *Fleta Minor* (1683): Blurring Words and Things through the Experimental Trials of Metals

This paper argues that Part two of John Pettus' *Fleta Minor*, "An Essay on Metallick Words," the first English mining glossary, is an instance where experimental trials, or assays, blur rather than uphold the distinction between words and things touted by the Royal Society as central to experimentation. The deputy governor of the Society of the Mines Royal, Pettus wrote the "Essay" to supplement his English translation of a German treatise on assays, thereby opening foreign expertise to an English audience. Such efforts to render technical information accessible to the general public paradoxically made reading such literature more difficult by creating the need for "hard word" lists or glossaries. As signs of both the discursive and manual difficulties of technical knowledge and the Germanic origins of most technical terms, "hard words" reinforced a connection between words and things that was disavowed by the Royal Society's paradigm of experimental research.

Sabiha Ahmad (University of Michigan)

Session 6G: Encountering the Alien

Room 108

Chair: Kristine Larsen (Central Connecticut State University)

Excellent Teachers: Science, American Culture, and John W. Campbell's Short Fiction

John W. Campbell is best known as the editor of the science fiction magazine *Analog*, which, in Campbell's words, focused on "science fiction AND science fact." Campbell's love of science is well known, as is the fact that he used his position as editor to promote the value of science to the public. His 34 year tenure as editor granted him great influence, but it has also overshadowed his writing career. A Duke alumnus, Campbell was an accomplished short story writer and while the pro-science aspects of his magazine, including his editorials, has been studied thoroughly, there remains a need for critical evaluation of his short fiction. Campbell's stories are almost uniformly pro-science, but are also strongly humanist and feature a cautionary element that is rarely seen in his *Analog* period. Still, everything science has to offer, from new household devices to atomic energy, is portrayed positively in Campbell's work. Particularly noteworthy is his "Invaders" series, three stories that depict a decadent human society's reaction to alien invasion. This paper will examine Campbell's short fiction, focusing on the manner in which he used popular literature to make science a vital element of American culture.

Randy Clark (North Georgia College and State University)

"The Figure here annexed": Image, Language and Science in Book III of *Gulliver's Travels*

Jonathan Swift's Book III of *Gulliver's Travels*, an example of the early science fiction genre, works on a number of different levels to parody the process of securing belief. Though Swift scholars are quickly making Book III the most-written about book of *Gulliver's Travels*, focusing in particular on Swift's parodic use of dry, objective language, scarcely any critical attention has been directed toward the unusual placement of its images. To alleviate this critical discrepancy, this paper foregrounds Swift's image of the literary engine to highlight a productive link between Book III, Swift's technique of parody and contemporary science studies. I argue that at the inception of the institutionalization of empiricist, experimentalist epistemology, Swift identifies visual representation as both integral to the culture of written scientific observation, and open to a wider scope of interpretative possibility than generally admitted. Central to this analysis is Bruno Latour's conception of the practice of "iconoclasm," and other contributors to the *Iconoclasm* anthology.

Shannon Ciapciak (Duke University)

Tolkien's "Burning Briar" – An Astronomical Explanation

J.R.R. Tolkien was mindful of the inner consistency of his "Middle-earth," declaring that it was to be envisioned as the real world in a much earlier time. In his process of "sub-creation" Tolkien included an origin for the stars as part of his mythology. Certain groupings were clearly identified by Tolkien himself (or Tolkien scholars) as corresponding to real constellations and asterisms. Chief among these was the Big Dipper, which played an important role in the eschatological myths of Middle-earth and the prophesized defeat of Melkor. Among the various names Tolkien gave to this asterism was the "Burning Briar," an

obscure moniker which Christopher Tolkien (son and editor of Tolkien's posthumous publications) admitted he could not explain. This paper postulates an explanation for the name which draws upon astronomical phenomena with which Tolkien would have been familiar and is in keeping with the symbolic importance of the asterism in his mythology.

Kristine Larsen (Central Connecticut State University)

Guest Scholar Session 1

Room 102

Fri, Oct 15, 5:30 pm - 7:00 pm

Pre-Post-Modern Relativism

Barbara Herrnstein Smith (Duke University / Brown University)

Respondent: Arkady Plotnitsky (Purdue University)

Respondent: Caspar Jensen

Reception

Room 101

Fri, Oct 15, 7:00 pm - 8:00 pm

Continental Breakfast

Sat, Oct 16, 7:45 am - 8:30 am

Session 7

Sat, Oct 16, 8:30 am - 10:00 am

Session 7A: Humans and Animals

Room 102

Chair: Benjamin Joplin (SUNY-Buffalo)

Soft Science: Embracing Animal

Screening excerpts from High's art work including ANIMAL ATTRACTION, a video documentary on telepathic animal communication, and EMBRACING ANIMAL, a multimedia installation honoring "monsters", High traces the way we define "animal" in modern society. ANIMAL ATTRACTION is an amusing and absurd investigation into an American subculture of animal communicators. Following the day to day routine of an interspecies telepathic communicator, Dawn Hayman, from an animal sanctuary in

upstate New York, the video documents the strange relationship between people and their animals, questioning the way we project ourselves onto our pets, imbuing their gestures with human attributes. The installation EMBRACING ANIMAL celebrates our kinship with monsters, from werewolves to transgenic lab rats. Through a process of empathy, and identification, High revolts against the proscribed hierarchical order between man and beast. The shift put forward in this talk suggests a re-evaluation of our framework traditionally binding animals and human beings.

Kathy High (RPI)

Birds Watching Humans: A Blue Jay Looks Back

Blue jays and humans have been looking at each other since humans first inhabited the eastern part of what is now the United States. Nineteenth century watchers of blue jays, like Henry David Thoreau and John James Audubon, saw various moral lessons in the bird. Jumping ahead to the end of the twentieth century, in Don DeLillo's novel *The Body Artist*, a character wonders what a blue jay sees when it looks into a human world. "It stood enormous, looking at her, seeing whatever it saw . . . When birds look into houses, what impossible worlds they see. Think. What a shedding of every knowable surface and process" (22-3). This paper will explore the interspecies interaction between humans and blue jays. What humans see when they look at a blue jay is pretty clear. What the bird sees when it looks back at humans is less clear, and perhaps more interesting. KEY WORDS: Audubon, DeLillo, cognitive ethology, vision

Jeff Karnicky (Millersville University)

Humanity and Animality: How Writers Refigure Difference

This presentation focuses on the rapidly decreasing literal and theoretical divide between humans, animals and other non-humans. Specifically, I look at texts in speculative fiction, classic literature, and memoir, examining how writers imbue their non-human characters with the capability of language to anthropomorphize them and connect humanity and animality. Building on Donna Haraway's recent work on transgenics and companion species, I focus on a rhetorical approach to understanding how people, especially people with disabilities, engage with animals in writing. I examine how people with cognitive disabilities and people with physical disabilities can potentially use rhetorical strategies such as anthropomorphism and personification differently to lend agency to nonhumans and humans. Drawing parallels between the cosmetic and biological divides of physical and cognitive disabilities and the differences between the more externalized, "cosmetic" practice of tissue engineering and the more internalized "scientific" work of genetic engineering, I show how this split raises different questions for writers.

Shannon Walters (The Pennsylvania State University)

Human History and Marine Biology: Graham Swift's *Waterland*

The narrator of Graham Swift's *Waterland* is a history teacher who diverges from the curriculum's "great events" and instead recounts his autobiography, a Gothic detective story of sexual awakening and disastrous love triangles. He abruptly interrupts his story with two seemingly incongruous chapters, "About Eels," an essay on the transatlantic eel, and "About Natural History," his comment on the irrelevance of human history to beings such as eels. He tells us that the large events of human history, let alone his own autobiography, do nothing to "interrupt the life cycle of the eel," which has remained a mystery to all natural historians from antiquity to present-day marine biology. But the mystery of the eel is a red herring; its inclusion in the novel aids the narrator in finding meaning not in eel reproduction but in human reproduction.

Benjamin Joplin (SUNY-Buffalo)

Session 7B: Writing Bodies/Reading Habits

Room 103

Panel Chair: Jodie Nicotra (Penn State University)

Seeing Atoms, Envisioning Nanotechnology: Haptic Vision Practices and the Scanning Tunneling Microscope

In an essay, "From the Bottom Up: Building Things With Atoms," physicist Don Eigler suggests that a recent visualization technology, the scanning tunneling microscope (STM), forms its images akin to how "a

blind person can form a mental image of an object by feeling the object" (427), as it relies on non-optical interactions between microscope and sampled surface to create its atomic-resolution images. He also suggests a similar relation between microscope user and object, such as an atom, explaining the other attribute of this visualization technology, to be able to "push, pull, pick up and put down surface atoms using the tip of the microscope" (427). Eigler's figurative comparison highlights this microscope's departure from many more conventional visualization technologies: the microscope and user do not wholly engage in optical imaging, but instead engage in vision practices that fuse touch and vision, forming what could be called haptic vision. This paper will describe these haptic vision practices and examine how they may effect image production, as well as image producers and viewers' practices of seeing. It will also explore haptic vision practices' implications on the conception of the atom. Finally, it will consider how such implications also affect how we envision the emerging field that the scanning tunneling microscope has helped spur, nanotechnology.

Valerie Hanson (Penn State University)

Neurorhetorics

This presentation assays emerging rhetorical modes hailed by contemporary psychopharmaceuticals; by highlighting locations where technoscientific conceptions of the human brain's processes run up against technologies of persuasion, the presenter marks not moments where one "exposes" the other, but rather foregrounds points where they become indiscernible or otherwise joined in a transactional process designed to produce particular effects. This itinerary begins with cyberneticists Warren McCulloch/Walter Pitts' "A Logical Calculus of the Ideas Immanent in Nervous Activity" (1943), one of the first instances where neurons and neural nets are not just spoken about but called upon to speak for themselves. It then moves to the autobiographical writings of John C. Lilly as a primary resource for viewing neurorhetorics as not only a new subject of investigation, but productive of new *subjects*--individuals whose activities within contemporary ecologies of neuroscience require new rhetorical practices and methods of knowledge production.

Jeff Pruchnic (Penn State University)

Darwin's Fleshy Refrain: Reading Darwin Differently through Tropes of Habit

In the preface to the Penguin edition of *The Origin of Species*, the editor defends the publisher's choice to use the first edition of Darwin's text (there were six), providing as a reason "Darwin's increasing reliance [through the six editions] on a theory which modern research has not substantiated--the inheritance of acquired characteristics." Such an editorial decision brings up interesting questions: why Penguin Classics would choose to emphasize the scientific validity of Darwin's argument over things like the text's historical or rhetorical importance, for instance. More importantly, though, it suggests a desire to expunge from the historical record Darwin's continued interest in Jean Baptiste de Lamarck's theory that organisms acquire habits in response to their environment and then pass those changes in structure or behavior onto their offspring. Indeed, given the contemporary biotechnological rhetoric that reduces organisms to expressions of their genetic "codes", Penguin's decision to emphasize the aspects of Darwin that make sense of this agenda is unsurprising. In this paper, I argue that a re-reading of Darwin's tropes of habit reveal a Darwin that may be unfamiliar to those accustomed to seeing his theories used as justification for sociobiology and evolutionary psychology; a Darwin that argues for the profound interconnectedness of life on earth.

Jodie Nicotra (Penn State University)

Session 7C: [Under]e-presentations: Negotiating Marginalized Cyber Identities

Room 104

Panel Chair: Edmond Y. Chang (University of Maryland, Department of English)

Panelist: Jessica Henig (University of Maryland)

"My Screen is in Shards": Technology and the Hypertext Aesthetic in *David's Story*

The aesthetic of hypertext literature is an aesthetic of interrelation rather than causation, of cooperation rather than authority, of discourse rather than hierarchy. Hypertext can be seen as giving a voice to the untold stories, fleshing out the interstices of the traditional linear plot; for these reasons, hypertext is the ideal medium for postcolonial works. Paradoxically, though, the very technology that makes hypertext so catholic—in fact, its very appearance of comprehensiveness—also makes it an object of suspicion from the postcolonial viewpoint. Zoe Wicomb's novel *David's Story*, which focuses on the life and history of a South African revolutionary, negotiates this contradictory relation by incorporating the liberating elements of the hypertext aesthetic within a conventional codex book. *David's Story* resists both the technology of hypertext and the tradition of the novel, resulting in a true open-endedness which is the only way to successfully complicate the colonial narrative.

Jessica Henig (University of Maryland)

Rushing Through the High-Tech World: A Search for Enchantment in the Communication Network

The World Wide Web's manifestation as a continually transmutational and emergent space implies a similarly amorphous, equally changeable navigational scheme that attempts to make digestible an almost infinite platter of info-capital. Regardless, though, of something like Google's attempts at weaving a cached web of spidered filament, information, especially cultural information, inevitably becomes lost in a Babelian library of inaccessibility, and the user of such a system encounters a defined sense of self and cultural disorientation. It is my intention in this paper to discuss how such a schema can possibly be negotiated by Native American populations whose access (or lack thereof) to the communication network (primarily beginning through phone line penetration) is not only economically limited but also, perhaps, culturally destructive. I will interrogate this issue by looking primarily at the work of Marilou Awiakta who, conversely, proposes that the network itself is not a culturally destructive force but, instead, a powerful metaphor for a wholly poetic and mythic system of connections that serves to not only expose the current state of our human-social relations, but also one that strengthens and remediates various aspects of Native American culture and, more generally, universal human truths.

Marc Ruppel (University of Maryland)

Birth of the Cyberqueer Manifesto

Cyberspace is queer. Something about the dance of electrons, the hypertextuality of meaning, the flickering of identities like a screen or a cursor belies queerness. Cyberspace is the greatest of undiscovered countries full of metaphor, illusion, mazes, mythology, and monsters. It is a place, an electromagnetic state, a variable field where everyone is citizen and where an individual can be multiple, simultaneous citizens and where many people can act as a single *netizen*. Cyberspace must be queer. It is a site of such contention, differing definition, rich and revolving identities, fear and desire, loathing and luminescence. Cyberspace is the queerest of places full of towers of data, archival abysses, tripped and untapped connections, alluring strangers, cyborgs, and cyberqueers. It is time for the love that dare not speak its name to create a screenname, type a password, and login. It is the moment for the historicizing, reimagining, and rallying of cyberqueers, for the creation and digitization of a cyberqueer aesthetic and citizenship, for a cyberqueer manifesto.

Edmond Y. Chang (University of Maryland)

Session 7D: Bio-Techno Science Fictions

Room 105

Chair: Manuela Rossini (University of Basel / University of Nijmegen)

Powers World: Virtual Reality and the Mind in Richard Powers' *Plowing the Dark*

Largely set in the Realization Lab, a virtual reality research center, Richard Powers' *Plowing the Dark* explores the stirring power of the human imagination to create and to transform its reality. As one character claims, "The mind is the first virtual reality. It gets to say what the world isn't yet." Throughout the novel, Powers compares this virtual world—"the place where ingenuity could always hit the Undo button"—with the novel itself. My essay negotiates Powers' formulation of the novel as a refuge or "a place to hide out in long enough to learn how to come back." Thus, I contend that narrative understanding emerges via "the

stereoscopic effect," a parallax between the virtual world of the Realization Lab and our "template world" that develops in the collaboration between book and mind.

Trey Strecker (Ball State University)

Knowing, Being, and the Reality Police: Science Fiction As Science Studies in Charles L. Harness's "The New Reality."

"The New Reality" is science fiction not because it deploys the conventional constituents of sci-fi, like futuristic technology, aliens, space travel, etc., but because it asks after the very possibility of thinking the world as we do today through scientific advancement and progress. Not, then, a futuristic technology, but a futuristic epistemology, one that, more than 50 years later, we can recognize as a crucial constituent of the kinds of critiques that science studies offers today. In "The New Reality," we see a privileged example, I would argue, of the degree to which science fiction can function as science studies, where science studies must always designate a kind of thinking that is not only concerned to reflect on the practices of scientific knowledge production, but must also designate, in the first instance, a reflection on its own onto-epistemological assumptions.

Dennis Desroches (St. Thomas University)

Richard Preston: True Prophet or Doomed Cassandra?

Richard Preston is best known for his "Dark Biology" trilogy. The *Hot Zone* (1994), *The Cobra Event* (1998), and *The Demon in the Freezer* (2002) dramatize threats humanity faces from emergent diseases such as Ebola and from bioterrorism. Preston's popularity rests on the vividness of his descriptions and on the personalization of scientific material. The question that readers and the public need to grapple with is to what degree is Preston performing a valuable social service by educating us about diseases and bioweapons or to what degree is his writing stirring up groundless fears? This presentation will explore Preston's "Dark Biology" trilogy in order to evaluate the effects his rhetorical devices have had on the popular imagination and to answer questions about whether Preston is a true prophet of coming plagues or a Cassandra, doomed to issue warnings that we disregard.

Harriette C. Buchanan (Appalachian State University)

What's Wrong with Being a 'Natural Born Cyborg'?

The breakdown of an essential difference between technology and life in the era of technoscience has been accompanied, if not accelerated, by a teleological narrative that posits the growing technologization of the human (body/subject/culture) as an inevitable outcome of the co-evolution of homo sapiens and tools/machines. While I fully support the notion of a dynamic and complex interplay between biology/nature and culture, evolution and technology as well as the understanding that there is no such thing as a pre-cultural human essence, I also ask myself whether a logic that casts technological development as the exponential continuation of biological evolutionary dynamics does not ultimately depoliticize technology and the technosciences by isolating them from their specific contexts and, arguably, by hiding nationalist, masculinist and capitalist interests. My paper will include a critical investigation of evolutionary theory in contemporary American science/ fiction.

Manuela Rossini (University of Basel / University of Nijmegen)

Session 7E: Early Modern Literature and Space

Room 106

Chair: Amy E. Cook

Psyche's Veil: Spenser, Henry More, and the Metaphysics of Space

This paper examines the relation between discursive form and metaphysics in the poetry and philosophy of Cambridge Platonist Henry More. Where previous critics have understood More's influential conception of space as inconsistent and riddled with "careless language," I argue there is a deeply rooted connection between the unfolding of space in More's late metaphysics and the figural dynamics of his early poems. Mapping the connection between Spenserian allegory (of which More is so fond) and More's mature philosophy is one way to re-imagine the latent historical connection between the experimental poetics of the late 16th century, the gradual transformation of early modern space, and the making of "modern science."

Gerard Passannante (Princeton University)

'Space may produce new Worlds': Other-worldliness in Milton's *Paradise Lost*

When Satan moves into the newly created space of Eden, he realizes "Space may produce new Worlds" in which "there will be room." Drawing from Emmanuel Levinas's metaphor of hospitality, [*Totality and Infinity*, 1961] this paper considers *Paradise Lost* in its exploration of how Edenic inhabitants—Satan included—respond to the environment of the Garden and to the prospect of "new Worlds." The poem suggests that humankind and the natural world serve as hosts—in a Levinasian sense—to each other. This reading analyzes how *Paradise Lost* responds to Copernicanism and the doctrine of a plurality of worlds, proposing that the poem depicts Adam and Eve as responsive in welcoming different beings. Adam and Eve's hospitable response to Raphael's emergence from the sky into their bower complicates claims that Milton was ambivalent toward the doctrine of a plurality of worlds: they are eager to learn about this extra-terrestrial being.

Leticia Liggett (Indiana University, Bloomington)

The Troubled Double: The Early Modern Mirror Through the Contemporary Conceptual Blending Frame

The conceptual blending theory of Gilles Fauconnier and Mark Turner offers a potential paradigm shift to our analysis of literature. Mark Turner has argued that an understanding of the brain can illuminate our understanding of literature and literature can illuminate our understanding of the brain. Turner's mind is a literary mind, one that uses story, metaphor, and analogy to think and feel. In their book *The Way We Think*, Fauconnier and Turner outline how we combine mental spaces to create new ways of seeing. Their conceptual blending theory provides a new way of thinking about the use of the mirror in Shakespeare's *Hamlet* and other Early Modern works. The technology of the mirror shifted radically during the Early Modern period and mirrors became more accurate and more common. With this historical shift in mind, I investigate how the trope of the mirror is used in *Hamlet* and other prose works of the same period. Conceptual blending theory offers a useful tool to parse a shifting metaphor and what it might unveil about the cognitive structures that produced such metaphors and figures.

Amy E. Cook

Session 7F: [Performing and Art]

Room 107

Chair: Aysegul Guchan (Yeditepe University, Faculty of Fine Arts)

My Travels with *The Crying Post Project*

I will present images and stories from my travels with *The Crying Post Project*. In creating *The Crying Post Project* I have gone around the world putting up memorial posts at sites of environmental and social disasters. This talk will include descriptions of the content and context for different sites along with conversations I may have had with scientists, artists and others along the way. The presentation will be supported by a video projection. Issues addressed will include electromagnetism, quantum physics, mapping theory, endangered species, mass market capitalism, and aesthetics. Find the website at www.thecryingpostproject.org.

Dennis Summers (Quantum Dance Works)

Virtual Emplacements: Jean Genet's Restaging and the Quiet Currents of Networked Queer Muslim Space

Amidst mid winter rain in 2002, the figure of Jean Genet was catapulted to public adoration in the predominantly Muslim city of Casablanca, Morocco. Genet's writings on Palestine were resurrected to offer the public multiple venues intended to enable considerations of a collective social response to the then escalating Israeli - Palestinian crisis. During a month long celebration of Genet's works, the public had an opportunity to engage with his contributions as an author, playwright and political observer. Highly mediated and heavily attended spectacles, while placing the writer in a celebratory light, entirely disengaged the biographic currency of his gay identity. Through an ethnographic analysis, I offer an examination of the public valorization of a gay author - stripped of his identity as such - and consider the deeper implications of this negation in light of simultaneous performances of queer Muslim lifestyle

occurring in chatrooms, internet dating services, and privatized cell phone use. Emphasizing the mediated appropriation of Genet's works and its duplicity in the spectre of silenced queer life in the city, this paper is intended to critically engage the role of 'new technologies of representation' in the contemporary reconfiguration of gay Muslim social space.

Bahiyih Maroon (University of California Santa Cruz)

Masculine Identity Codes in Halide Edip Adivar's Photographs

One of the main subjects of recent Turkish feminist studies is woman author Halide Edip Adivar who is one of the key figures of Turkish modernism. Adivar's novels are generally constructed on smart, well-educated and intellectual women characters whose lives are totally dedicated: they live for their countries, for their ideals and for their families; not for themselves. The photographic images of Adivar can be accepted as the counterpart of the characters she created. She always seems with a jacket, a white shirt and a pair of trousers which men wear in her photographs. In addition, she always wears a tie round her shirt's collar. In this paper the relationship among the masculine identity codes of Adivar's photographs and her women characters and male narrators will be examined through her photographic images and novels.

Aysegul Guchan (Yeditepe University, Faculty of Fine Arts)

Session 7G: Nature, Science, Fiction

Room 108

Chair: Lori Mumpower (University of Central Florida)

"The Great Dark Lake of Male Rage:" The Masculine Ecology of Don DeLillo's *White Noise*

Early in his 1985 novel *White Noise* Don DeLillo describes a suburban highway as a constant stream that "washes past, a remote and steady murmur...babbling at the edge of a dream" (4). This superimposition of suburban culture over a once wild nature appears throughout *White Noise*, for instance, in passages such as this one from the novel's opening: "Babette and I and our children by previous marriages live at the end of a quiet street in what was once a wooded area with deep ravines" (4). A familiar description of the happily average middle-class "blended family" around which the narrative revolves, this passage points to the rampant suburbanization that has transformed nature. As Dana Phillips points out, the natural world in *White Noise* operates as an "absent presence of which the characters are still dimly aware" (emphasis added). I will argue, however, that this reading of the absent presence of nature can be carried one step further to articulate Jack Gladney's crisis of masculinity, a masculinity which is also configured as an absent presence. The novel enacts Jack's refusal of a culturally-mediated (even technologically-mediated) sense of self through his reliance on "cultural nostalgia" for a more "authentic," more "natural" reality. Furthermore, this nostalgia leads, ultimately, to violence as Jack retreats into essentialist conceptions of masculinity that appear, to the main character at least, as his only defense against the cultural artifice and uncertainty of postmodernity.

Jeanne Hamming (Centenary College of Louisiana)

Endosymbiosis & Representations of Victorian Science in Sherlock Holmes

He was the world's first scientific detective. Deductive and rational, intelligent and intriguing, Sherlock Holmes was an accomplished man of science who brought his scientific mind to his detective work. When his character emerged in the periodicals of the late Victorian period, almost immediately, he became the most popular fictional detective, replacing those before him (most notably Dupin and Gaboriau) and shaping those to follow (from Poirot to James Bond) Much like T.H. Huxley and others, Sherlock Holmes was a popularizer of science in that he contributed to the nineteenth century discussion about nature and science in the general public through his use of scientific terms in detective fiction and his ability to use analogy to link together the worlds of art and science >Through his ability as an "ultra-modern figure" to use the science and technology of his society successfully, Holmes also acted as an outlet for anxiety at the fin-de-siecle.

Stephen Gennaro (York University)

Huxley, Rickard, and Wells: The Emergence of Technical Communication and Science Fiction

Scholars that have previously analyzed H. G. Wells' narrative techniques overlook the historical and biographical links between the genres of technical communication and modern science fiction, namely, the

relationships among Wells, his classmate T. A. Rickard, and their mentor Thomas Henry Huxley. In the proposed presentation, I trace the early-stage developments of the science fiction genre and technical writing as a mode of discourse to the teachings put forth by Huxley, as students Rickard and Wells went on to be credited as early influences upon technical writing and science fiction respectively. These authors' ideas about language, science, and education overlap in interesting ways, which allows us to more fully understand the roles of technical communication in modern science fiction. Further, a more complete analysis of the Time Traveler's description of the fourth dimension provides us with more convincing evidence of Wells as a technical communicator. More broadly, we can see from Wells' technique how technical communication serves an important role in the suspension of disbelief in the reader, and thus, contributes to the success of the modern science fiction novel.
Lori Mumpower (University of Central Florida)

Session 8

Sat, Oct 16, 10:30 am - 12:00 pm

Session 8A: Ethics, Environment and Ecology

Room 102

Chair: Louise Economides (University of Indiana)

Ecopoetics and Angus Fletcher's *New Theory of American Poetry*

I will investigate the ecological *form* of texts, not the ecological *content*. Eco-texts need not argue for a particular political or ideological advocacy; they only need to represent or realize the kinds of processes and structural relationships that exist in complex ecological systems. Hence, an ecopoem or econarrative can be about anything, "natural" or "artificial." Whatever ethics that might come to exist in such systems would be produced by the system itself, and thus would be necessarily dynamic, self-affirming, and "natural" outgrowths. These issues have been raised recently in Angus Fletcher's *New Theory for American Poetry: Democracy, the Environment, and the Future of the Imagination* (Harvard, 2003). Fletcher's aesthetics derive ultimately from Presocratic philosophy, according to which, the world can only be understood as living form whose categories are founded, as an environmentalist might say, upon a holistic theory of mind.

Victoria N. Alexander

The Agricultural Imagination in Twentieth Century British Science Fiction

The Agricultural Imagination in Twentieth Century British Science Fiction This paper traces narratives of agricultural or horticultural catastrophe in several works of science fiction by twentieth century British writers, including H.G. Wells's *The Food of the Gods* (1903), J.D. Beresford's *The Man Who Hated Flies* (1929), A.G. Street's *Already Walks Tomorrow* (1938), Edward Hyams's *The Astrologer* (1950), John Christopher's *No Blade of Grass* (1956), and J.G. Ballard's *Dream Cargo* (1990). Collectively, these works reflect the changing fortunes of England's agricultural community in the late nineteenth and twentieth centuries. In demonstrating both hope for the future and disgust with humankind's tendency to degrade the environments that make life possible, these works consider the long-term consequences of industrial farming, satirize fantasies of unending agricultural abundance, and promote a political economy that accounts for environmental limits.

Neal Bukeavich (King's College)

The Ethics of Organic Farming in David Mas Masumoto's *Epitaph for a Peach*

In the last thirty years or so, several writers have attempted to focus public attention on various methods of agriculture. Leading the pack have been Wendell Berry and Wes Jackson, both concerned with sustainable agriculture--Berry in the hills of northern Kentucky, and Jackson in Salinas, Kansas. In their writing, a somewhat skeptical stance regarding the relationship between science and agriculture emerges, and the position taken by these "fathers" of the sustainable agriculture movement provides a productive framework

for considering the work of a more recent member of the discussion: California organic farmer David Mas Masumoto. Masumoto's use of science in his farming signals the need to explore the ethical underpinnings of the organic movement. What I will attempt to do in this paper is explore the ways in which these three men conceptualize the relationship between science and farming, and point toward some ethical considerations which may surface as we explore Masumoto's work of creative nonfiction, *Epitaph for a Peach*.

Jeanne Sokolowski (Indiana University)

Session 8B: Sciences of Affect I

Room 103

Panel Chair: Elizabeth A. Wilson (University of Sydney)

Affect, Why Now: Technobodies, Technopolitics

In the introduction to Silvan Tomkins's work on affect, Eve Sedgwick and Adam Frank stress Tomkins's "very fruitful historical relationship" to a moment, which they refer to as "the cybernetic fold." This moment, from the late 1940's to the mid-1960's, is one in which thinking "is marked by the concept and the possibility of powerful computers but the actual computational muscle of the new computers isn't available." (Shame and Her Sisters. Durham: Duke U. Press, 1995, p 12). In this paper, I want to take up treatments of affect more recent than Tomkins's treatment, especially those influenced by Gilles Deleuze's rereading of Spinoza's understanding of affect as 'the bodily power to do.' I want to suggest that these recent treatments of affect are ones in which the cybernetic fold is unfolded as an understanding of affect is linked to the realization of high power computer technology.

Patricia Clough (CUNY)

Affects, Emotions, and Scripts: Tomkins in the Eighteenth Century

The analytic distinction between "affects" and "emotions" has been articulated (in different ways) by neurologist Antonio Damasio, philosopher Brian Massumi, and psychologist Silvan Tomkins. This distinction is useful in balancing the relative effects of fundamental, embodied affect-responses with the elaboration, capture, distortion, or perversion of such responses in an interpersonal and symbolizing environment. In this paper, I will consider current thinking on affect and emotion, with special reference to Tomkins, in relation to the vigorous expansion during the eighteenth century of psychological theories. I will zero in on moments in eighteenth century texts that indicate a fascination with what seems to be affectlessness (the preternatural calm of the "saved," or the stoical "magnanimity" of the North American Indian under torture). These limit-cases confirm with particular clarity Tomkins' view that "the belief in the reality or irreality of affect is a derivative of the socialization process."

Jonathan Elmer (Indiana University)

Ecodelic: Psychedelics, Technical Innovation and Affective Programming

Instructions emphasized that the experience could be directed as desired. Ss were told that they would not experience difficulty with such distractions as visions, involvement with personal problems, and so on. "Psychedelic Agents in Creative Problem Solving", (Willis Harman et al., 1966). Before their possession became a criminal offense in the United States, tryptamines (e.g. psilocybin), phenethylamines (e.g. mescaline), and cannabinoids (e.g. Cannabis Sativa and Indica, THC) were given to engineers and designers to break "creative logjams" and promote Cold War era innovation. In the late 1950's and early 1960's, for example, the employees of the Ampex Corporation (inventor of the Video Tape Recorder) studied the effects of LSD and mescaline on their engineers, and the results were published in a growing body of literature and data on tryptamine and phenethylamine "regimens" and their effects on technical innovation. These regimens included precise and intensive rhetorical practices such as the epigraph above – although essentially ineffable, psychedelic experience was treated as fundamentally and essentially programmable. This talk will look to the history of these highly programmed human subject trials and the role of rhetorical practices in them in order to evaluate more recent claims by inventors and researchers such as Mitch Kapor (Lotus, spreadsheets), Mark Pesce (Virtual Reality Markup Language) and Kary Mullis (Polymerase Chain Reaction) that psychedelics played an integral role in the invention of their breakthrough technologies.

Richard Doyle (PSU)

Session 8C: Autopoiesis and Complexity

Room 104

Chair: David Reed

Autopoiesis and the Origins of Chirality

For those seeking pathways in the poorly mapped borderlands between the sciences and the humanities, the concept of an autopoietic system — one that produces the prerequisites for its own operation — appears to offer potentially helpful guideposts. A striking feature of all terrestrial life is that, for virtually all molecules that can exist in either left- or right-handed forms (chiral molecules), only one of the two is produced and utilized. This discrimination is of course accomplished with the aid of molecules (generally enzymes) that are themselves present in only one form, so this characteristic falls within the above definition. Autopoietic theory often explicitly eschews questions of origins; but the origin of chiral preference from a (presumably) prebiotic, prechiral world has long puzzled researchers. Plausible but unproven theoretical explanations have been proposed for over half a century. In the last few years some intriguing experimental results have been reported, that appear to validate the theoretical framework and even suggest detailed mechanistic explanations. I will summarize these findings and attempt to relate them to autopoiesis and other general points of connection.

Jay Labinger (California Institute of Technology)

"Theory" in the humanities and complex adaptive system models

"Theory" in the humanities, unlike most theorizing in the sciences, is not necessarily about describing the world as it is, but may be about alterity -- a mode of critique. Furthermore, the specificity and particularity of each text and cultural production is of concern to humanists, whereas explanation at the aggregate, rather than the particular, level, usually suffices for theories in science. We suggest that the complex adaptive systems (CAS) approach, an interdisciplinary methodology which has led to insights in the natural and social sciences, may be a point of connection between these two very different notions of "theory". Ontologically, the CAS approach explains aggregate-level generality as an emergent property of underlying particularities, and, epistemologically, it is conducive to knowing about alterity. An implemented CAS model presented in the paper illustrates how such models can be one way of rethinking "theory".

Sayan Bhattacharyya (University of Michigan, Ann Arbor)

Neuroscience and literary criticism

Science-based criticism has been championed among literary methodologies as a would-be usurper of post-structuralism and other institutionalized relativisms. In pursuit of this vision, the "linguistic turn" negotiated by philosophy over the course of the twentieth century is often judged a groundless digression, especially when compared with the degree of epistemological certainty upheld by the hard sciences. This paper contends, rather, that Derridean deconstruction (arguably the epitome and cul-de-sac of linguistic philosophy) has in common with functional, scientific theories of cognitive knowledge a core dynamic defining complex, adaptive systems, that is, one predicated on the role binary inversion plays in the ongoing construction and dissolution of knowledge. This paper locates the ramifications and assumptions of said dynamic within the distributed, enactionist models of perception proposed by neuroscientists Varela, Edelman, and Freeman. Second wave cognitive science (and, by extension, other disciplines assuming embeddedness) may then be seen not as a radical dissenter to the dominance of post-structuralism, but rather as its legitimate heir.

Sharon Lattig (CUNY Graduate Center)

Session 8D: Writing Medicine

Room 105

Chair: Lynn Z. Bloom (University of Connecticut)

War and the Language of Pain

For almost ten years before the American Civil War, S. Weir Mitchell, wanting to establish a reputation in physiology and neurology, did extensive experimentation with animals. In 1862 this animal experimentation was radically transformed, however, when he became a contract surgeon in the U.S. Army. In a nightmarish substitution, human beings replaced the animals of his earlier experiments. Soldiers suffering from neurasthenia, hysteria, degeneracy, and burning pain or causalgia were sent to him as a last resort. Several major publications resulted from this pioneering work with pain, and Elaine Scarry writes that a great deal is at stake in the attempt to invent linguistic structures that will reach this area of experience normally so inaccessible to language. This presentation explores the language of pain in two of these publications, the medical text *Gunshot Wounds* (1864) and the short story "The Case of George Dedlow" (1866).

Nancy Cervetti (Avila University)

Reluctant Rhetor: Ignaz Semmelweis and the Role of Hygiene in Puerperal Sepsis

In the teaching hospitals of the 1840s it was not uncommon for the incidence of death from childbed fever to run as high as 25%. In community hospitals, and in births attended only by midwives, the rates were minimal, normally less than 3%. A young Hungarian physician noticed that physicians and medical students often rushed from surgeries or autopsies to deliver multiple births, usually without washing their hands. In these days before germ theory, many leading experts saw simple handwashing as a waste of precious time. Semmelweis instituted a regime of washing hands in chloride of lime water, which quickly dropped the infection rate on his ward to less than 2%. While his students championed his methods, his superiors were skeptical. Semmelweis was reluctant to give lectures on his findings, and rarely published his results. When he did write, his rhetorical strategy was disastrous. It is primarily because of this brilliant clinician's reluctance to effectively communicate his discoveries that it took almost a generation before Koch and Lister could convince the medical community to adopt the most simple hygiene practices. This paper will examine the role of rhetorical practice in Semmelweis's failure to gain acceptance for his theory.

Michael Strickland (Elon University)

Bucking the System of Medical Education: Physician as Activist

One of the fundamental features of American medical education is its conservative nature, according to the renowned historian Kenneth M. Ludmerer, author of *Learning to Heal* (1985) and *Time to Heal* (1999). Having fully matured by the 1920s, the system of medical education is remarkably resistant to change. Such is the lesson learned by five physicians who published autobiographies about medical school, internship, and residency from the 1970s to the 1990s: Fitzhugh Mullan, Steve Horowitz, Charles LeBaron, Michelle Harrison, and Stephen B. Seager. Representing various specialties—including pediatrics, internal medicine, obstetrics and gynecology, and psychiatry—all five of them are activists who attempt to change medical education for their own benefit and that of their patients. Despite serving different constituents, among them people of color and women, and despite employing different strategies for change, all of the activists are defeated by the unyielding system of medical education.

Cheryl A. Koski (University of South Florida St. Petersburg)

(Im)Patient

This personal narrative focuses on aspects of invisibility that many patients with disabilities experience in the course of their illness, surgery, therapy, follow up treatment, and daily life. It presents the specific case history of a patient's (my own) two surgeries for a torn rotator cuff and subsequent rehabilitation over a six month period. Editors and manuscript reviewers for the two places in which different versions of this will appear—a special disability issue of *Prose Studies* and a book on patients' perspectives for helping professionals (both to be published well after the conference dates)—have commented that through the specific I have accurately represented the generic experiences of patient invisibility very precisely. The appended excerpt from "Fine," the concluding section of "(Im)Patient," provides a sample of both my style and my attitude toward the subject. As Everypatient, I've told stories here that I couldn't disclose to my own doctors, therapists, or hospital staff in an atmosphere rushed, overworked, and public. Although I believe I have been (with one exception) respected as a patient, in every medical setting I have heard the time clock ticking and felt that I am using up too much of it. So I cannot show this essay to those kind people in the doctor's office and the hospital who could supply the answers that might indeed, alleviate pain and stress and enable patients to really mean it when we say we're "Fine, just fine."

Lynn Z. Bloom (University of Connecticut)

Session 8E: Science, Law, and the Courts

Room 106

Chair: Lindgren Johnson (University of Mississippi)

(Dis)Colored Deliberation: Race, Science and Popular Narratives of Femininity

This paper explores the popular phenomena of talk shows offering paternity tests for the children of "promiscuous" young poor women, and the publicly prosecuted episodes of child abuse at the hands of women of color. It considers the use of science (specifically DNA technology and medicine) in the process of deliberation upon the appropriate social response to the women involved. I argue that the "evidence" presented before the court of public opinion does not give rise to a neutral reasoned deliberation, but rather the purported objectivity of the evidence is often an obfuscation. In fact, the liminal space between the presentation of evidence and the conclusion of the viewer is filled (so smoothly as to appear unconscious) with a socially repetitive racist narrative of depraved femininity. Deliberation is displaced by ideology, ideology which in turn is codified by the rhetoric of scientific objectivity.

Imani Perry (Rutgers University)

Expertise in Law: Revisiting "Sociotechnical" Identities

Using transcripts of expert witnesses in recent tobacco litigation, I revisit and seek a broader application of Cambrosio/Keating/Mackenzie's study of how scientific experts in patent litigation "mobilize" both technical and social arguments in their usual--and not just their legal-scientific--discourse. I first identify the effort by lawyers and legal scholars to downplay the social, institutional, and rhetorical aspects of good science. I then consider the argument that "novel" scientific testimony benefits from rhetorical and sociological studies of science as a means to demonstrate the pragmatic limitations of "mainstream" scientific testimony and thereby level the playing field. Among lawyers, however, identifying the social aspects of science almost always functions as a criticism--plaintiffs' experts with novel theories criticize the mainstream for being social (e.g., locked in an old paradigm), and defense experts with mainstream theories criticize the novel theorists for being social (i.e., for being biased, interested, and motivated, rather than methodologically rigorous). In law, therefore, the social, institutional, and rhetorical aspects of science are rarely seen as inevitable--"good" science is idealized as an enterprise that does not rely in any meaningful sense on such features. In the conflicting depositions of experts in tobacco litigation, however, both sides go back and forth strategically between naturalistic and social frameworks, and alternatively view the social features of science as good and bad.

David S. Caudill (Washington & Lee University)

Witnessing Materiality: The Haunting of Science and Technology Policy Discourse

Pointing out the extent to which scientific discourse and policy making swerves from direct meaning unsettles the effect of realism that these texts cultivate. Yet the reality of the fantasy, the literal within the figural, the both/and of material-semiotic actors (Haraway 1997)—this parade of confluences haunts even the most prosaic policy discourse. This paper demonstrates how drug policy and science rely upon a repository of cultural figures, showing how "governing mentalities" shape policy outcomes and their differential effects. Perhaps most threatening about a mode of analysis that displays the tropic self-fashioning at work in technoscience is that it undoes the structure of heroic action in science and policy-making. Extending cultural and rhetorical analysis to this domain disturbs not only scientists and policymakers, but those who "unveil" them by studying their activities. This paper explores how Haraway's thought shaped my own thinking about how "governing mentalities" and witnessing work in science and technology policy.

Nancy D. Campbell (Rensselaer Polytechnic Institute)

Butchers or Slaves?: Classifications of Species and Race in The Slaughterhouse Cases

The Slaughterhouse Cases (1873), best known as the precedent for Plessy v. Ferguson (1896), established the Fourteenth Amendment as race specific at the same time that it revealed and constructed classifications of race. Yet scholarship remains absent regarding the crucial role of species in the resulting definitions of race. The growing field of Animal Studies, especially the work of Susan McHugh, Erica Fudge, Carol Adams, and Harriet Ritvo, will help to illuminate the way in which race is constructed through species in these cases. The white butchers who sued the city of New Orleans claimed they were effectively being

"reduced to slavery" by the city's demand for a central slaughterhouse. This convergence of whiteness, animal slaughter, and "slavery" is the nexus in which my argument is grounded: in my essay, I will contextualize the butchers' self-depiction in terms of slavery as a result of underlying anxiety regarding relinquishment of their control over animals—both dead and alive—and thus, by extension, anxiety regarding their status as white, and so as human.

Lindgren Johnson (University of Mississippi)

Session 8F: Pleasure, Sentience and the Sublime

Room 107

Chair: Lauren Klein (The Graduate Center, CUNY)

In the Distance so Close. Imagination as the Condition of Possibility of Pleasure in Moses Mendelssohn's *Letters on Sentiment* (1755)

Moses Mendelssohn, Lessing's friend and for many *the* German Jew of the eighteenth century, has often been depicted as the one Enlightenment thinker who insisted on the significance of the sensual and corporal in human life and who resisted the general belief in an increasing perfection via rationalization. Hence, Mendelssohn's *Letters on Sentiment* have always been interpreted as a dialogue between a rationalist and an empiricist, an objective and a subjective thinker, in which the empiricist's voice is favored by the author. This paper shows that the focus on the oppositions involved made it impossible to see the common ground of the dialogue partners whose convictions turn out to be neither purely rationalist nor purely empiricist. But rather than claiming some middle ground between the oppositions, this paper argues that Mendelssohn opens up an independent third possibility in stressing the significance of distance generated imagination as precondition of sentiment and pleasure.

Christine Lehleiter (Indiana University)

Sentient Matter, David Hartley, and Imagining the Human in the Eighteenth-Century British Novel

My paper, "Sentient Matter, David Hartley, and Imagining the Human in the Eighteenth-Century British Novel," recuperates David Hartley's philosophical work, *Observations on Man, His Frame, His Duty, and His Expectations* (1749), as a representative Enlightenment text on the possibility of thinking matter and explicates how this idea shapes the character, "Man," that he creates in his two volumes. This reading of Hartley's work provides us with a method for discovering the influence of the sentient matter question on characterization in a variety of discourses, including prose fiction. By considering the form of characterization employed by a scientific treatise, my paper moves away from a "reflection theory" that assumes that science defines a reality that literature reflects. The effect of the sentient matter question bridged discursive boundaries, affecting the representation of persons in science and literature by determining the forms that characters could take, how their thought was represented, and what motivated them.

Scott Nowka (University of Iowa)

The Attraction of Gravity: Edmund Burke on Isaac Newton in *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful*

While many critics have acknowledged the influence of Isaac Newton's theory of gravity on Edmund Burke's *Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful* (1759), few have examined the instances of direct reference within Burke's text. This paper will explore these brief moments of invocation. I will propose that Burke attends to Newton's discussion of gravity because Newton's difficulties of articulation are related to the paradox of language Burke himself will confront in the Enquiry. I will also contend that Burke's conception of Newton's theory itself resembles an experience of the sublime. I will further argue that Burke's response to Newton unearths a tension within Burke's own theory – his attempt to appeal to clarity and reason at the same time that he repudiates these empirical virtues. In Burke's attraction to the difficulties presented by Newton's theory of gravity, the implications of his own theory become clear. Burke acknowledges the fundamental paradox of language – its arbitrary and ambiguous nature – while launching a new era in the representation of the sublime.

Lauren Klein (The Graduate Center, CUNY)

SLS Business Lunch

Room 101

Sat, Oct 16, 12:00 pm - 1:30 pm

Session 9

Sat, Oct 16, 1:30 pm - 3:00 pm

Session 9A: Reading Visual Images of Animal Bodies

Room 102

Panel Chair: Narisara Murray (University of Indiana)

Reading Visual Images of Animal Cruelty in fin de siècle America

Animal welfare activists used a variety of visual strategies to sustain and legitimize their movement during the Gilded Age and Progressive Era, conveying the plight of tired laboring animals through striking images. In the 1910s, however, the movement's visual iconography shifted as fewer laboring animals populated the built environment. Activists increasingly focused on performative animal bodies. The ideological implications of this transformation reflect the animal welfare movement's expansion to include an animal's right to live in a state of "nature" at a time when social constructions of nature and the built environment were becoming increasingly bifurcated.

Janet Davis (University of Texas)

Why Look at Animal Sex?

Wildlife films and television programs in the U.S., once typically scheduled as "family entertainment," have frequently depicted mating with a narrative ellipse, moving from scenes of animal courtship directly to scenes in which offspring emerge from den or nest. However, since the commercial proliferation of animal genres on The Discovery Channel, Animal Planet, and National Geographic Channel, the trend in wildlife TV has been toward increasingly explicit depictions of sexual behavior. This paper explores the genre's conventional options for representing animal sex, and the implications of these representations for our understandings of human sexuality.

Cynthia Chris (College of Staten Island/CUNY)

Jellyfish Optics: Immersion in Marine TechnoEcology

This paper explores cross-species encounters within a display of jellyfish at the Monterey Bay Aquarium. Drawing on animal studies and optical theories, I ask how the "Drifters" exhibit immerses the patron into thick co-habitations and co-presences in a theatrical world of light and water. I resist the presumption that animal exhibits are only about domination and dollars and argue for a more active understanding of the jellies' place in the exhibit. Through the conjoinment of human and non-human, apparatuses and organisms--human and jellyfish--form and constitute each other and themselves. My goal is to help hold the experience that links humans and non-humans and to articulate its histories of encounter, interaction, intimacy, and inhabitation.

Eva Shawn Hayward (University of California, Santa Cruz)

Session 9B: Sciences of Affect II

Room 103

Panel Chair: Elizabeth A. Wilson (University of Sydney)

Craving Differences

Current developments in neuropsychiatric genetics offer new materials for thinking the habits of that most proximate and distant of the model organisms of genomics, humans. Smoking is one such habit, although geneticists are more likely to use "nicotine use" or "nicotine dependence" as a way of delimiting the phenotype. The habit and its affects – "craving," to oversimplify – are implicated with the murmuring activities of drug metabolism genes, dopamine transport and receptor genes, and others. These genes have various forms, which occur at variable frequencies within populations; as a result, different gene-human-population conglomerates offer promising targets for molecular/molar (nasal sprays/population screening) interventions. This paper reads the differences in cravings as they occur across diagnoses (use to dependence to addiction), substances (nicotine to alcohol to cocaine) and associated affective forces (enjoyment to "novelty-seeking behavior"), and it reads the complex mechanisms traversing genes, cells, and the NIH that channel craving.

Michael A. Fortun (Rensselaer Polytechnic Institute)

Accessing the Organ of Deceit: The New Psychometrics of Deception Detection

In a post-9/11 world, lie detectors are being reconceived, redesigned and reintroduced in the name of national security. Their newest incarnations: an EEG based technique called brain fingerprinting and a fMRI scan for heightened cerebral activity during deception. Although these detectors promise to bypass unruly autonomic physiological reactions, they problematically return us to the body in several other respects. Focusing on the work of Lawrence Farwell, the inventor of brain fingerprinting, and on James Halperin's 1996 novel, *The Truth Machine*, I argue that brain-based detection neither escapes from nor fully revises the fraught historical legacy of traditional polygraphy; it remains haunted by several already well-articulated hazards. Specifically, these scientific and fictional detectors retain assumptions about deception and affect: that the body will betray the mind, its emotions and intentionality; and that it is possible to flatten models of memory and the psyche into a decipherable map.

Melissa Littlefield (The Pennsylvania State University)

Psychopharmacology as Social Theory: Communicating Affect

Several late 19th and early 20th century French, U.S. and British social theorists believed that contagious communication—expressed through concepts of 'suggestion,' 'collective mimesis,' 'emotional contagion,' 'imitation'—composed the very essence of the 'social' group. Post-World War II U.S. social science largely disavows these concepts as either empirically empty or too dangerously intimate with fascist social psychology. As post-war cybernetics joins conceptual forces with psychiatry to begin modeling the human central nervous (and its friendly ghost, the new computing machine) as a communication/information-processing device, psychopharmacology emerges as a mass approach to 'correcting' communication flows in (sub)individualized disorders of affect and perception. Against this selective historical background, I want to consider today's 'anti-depressant era' (D. Healy) as an instance of psychopharmacology as social theory, a story of the partially automated transmission of affect operating through the planned techno-contagion of communicative messages passing through synaptic, psychiatric, corporate, and mass media/advertising networks. What kind of—suggestible?—social is being theorized and materialized here? And as professional social theorists themselves are increasingly networked through the affective economies of anti-depression, how are the affective registers of theory implicated in the science of psychopharmacology?

Jackie Orr (Syracuse University)

Session 9C: Scientific Mappings

Room 104

Chair: Barbara Maria Stafford (University of Chicago)

Imagining Nature: Technologies of the Literal, the Scientific Revolution, and “Literature and Science”

I intend to reopen and interrogate an assumption aligned with the emergent separation of "science" and "literature," and closely linked to triumphalist narratives of the Scientific Revolution: nature as the realm of the "literal." Conventionally, the emergence of modernity and modern science in the seventeenth century have been underwritten by the turn from the symbolic to the literal. Whether favoring a simple, unadorned descriptive language or insisting upon concrete visual representation of natural phenomena, the "sciences" and medicine sought to reproduce and exhaustively catalogue the literal in nature as foundation for the production of knowledge. This paper suggests ways to interrogate the status of the literal arguing for examination of all kinds of technologies that were adopted—or adapted—to produce the literal as an object of knowledge and cultural authority. Among the technologies that we should, I argue, explore are: reading; visual technologies; mapping, diagramming, and modeling; the production of tables, lists, and methods of storing, organizing, and retrieving information; mathematical representation; laboratory practices; instruments as technologies for accessing, documenting, and producing specific and precise realms of the literal; the use of museums, cabinets of curiosities, and natural history to construct "objects" as literal constituents of a natural world; classification techniques.

James J. Bono (University at Buffalo, SUNY)

Hedonics: Pleasure, Pain, and the Neuroaesthetics of Feeling

There is a rich history of the nuanced exploration of affect, particularly in the visual arts of the eighteenth century--that age of sensibility, par excellence. There are also increasingly sophisticated neuroscientific and brain-imaging studies (both fMRI and PET) analyzing positive and negative subjective feelings. Most pertinent for my project, however, are recent attempts to distinguish one person's inner experience of pain from an onlooker's flinching empathy. This paper proposes an integrated art and science framework for capturing both the sensory and emotional aspects of fundamental non-verbal systems like pleasure and pain. I examine key paintings by Greuze and Hogarth with an eye to demonstrating how they deliberately make use of the viewers' emotional awareness and predictive tendency to re-represent the arousal perceived in others. These pictures--by prompting inferencing--also illuminate the phenomenon of "emotional contagion," the fact that an emotion can be activated by seeing the facial expression of the same emotion. These artists (and they are not alone) provide a laboratory case for studying the imitation of an entire gamut of emotions in vivo. I see my inquiry as part of a growing body of interdisciplinary research exploring mind states--including empathy, intuition, and consciousness which have in common the creation of an interior representation of what another individual is experiencing.

Barbara Maria Stafford (University of Chicago)

The Cultural Contexts of Brain Imaging

Functional brain imaging investigates everything from fundamental mental functions, like visual processing, to those aspects of the mind that define us as human, such as reasoning and empathy. And like other scientific methods cognitive mapping cannot be separated from its historical context. Perhaps a good way to understand mind mapping in terms of its milieu is with reference to Foucault's notion of an episteme. So what are the characteristics of the episteme in which imaging research participates? This paper examines two dominant trends in contemporary culture, globalization and the prevalence of the visual image, and will suggest some ways in which cognitive brain mapping reflects and perhaps even perpetuates these tendencies.

Michelle Gibbons

Phase Space Models of Affect in Cinema and Jazz: Passive and Active Embodied AND Distributed Aesthetic Cognition

At the recent conference on Gilles Deleuze at Trent University in June, I raised the following question: Does Deleuze model a morphogenesis from embodied to distributed cognition? I would like to pursue that question further by exploring an analogy between two forms of parallel processing and distributed aesthetic cognition. For the first form of parallel processing I refer to primitive, serial computation often called "time sharing." I would like to compare it by analogy to the passive cognition of multiple points of view on a single event through time through the aesthetic medium of cinema. This form of passive cognition is enabled by montage, one point of view at a time, as discussed by Gilles Deleuze in the Cinema books, especially with respect to the shift from "liquid" to "gaseous perception" across the axes of time and movement images (contra Hansen). For the second form of parallel processing I refer to true parallel processing enabled by the networking of autonomous hardware architectures and software processes, and capable of generating computing power greater than the sum of the computational components in an

illustration of a true emergent property. I would like to dispense with the problems associated with the visual cortex and cognition brought to the surface by such work as the avant-garde architects Arakawa and Madeline Gins, and compare this form of parallel processing with the spontaneous and parallel processing across N-dimensions of affect enabled by contemporary jazz musicians during moments of advanced improvisational technique, as I have discussed in past SLS papers.

Martin Rosenberg

Session 9D: Art History I: Art and Science in the 19th Century

Room 105

Chair: Elizabeth A. Kessler (University of Chicago)

Elliptical Worlds: Topographical Oscillations in the Landscapes of C. D. Friedrich

The paper proposes to demonstrate that the work of the German painter, Caspar David Friedrich (1774-1840) reflected prevailing Romantic scientific ideologies positioned at the speculative edge of science, a transcendental brink that the legendary Goethe was quite uncomfortable to stand upon. I shall argue that Friedrich structured his paintings based on a system of representational thought evident in the philosophical system of Schelling as well as on the "reality of mathematical ideas" manifest in Nature as described by Lorenz Oken (1779-1851). Caspar David Friedrich, a member of an intellectual circle that included many of the protagonists in the reformation of natural history, described multivalent worlds through thematic structures familiar to those who seek to synchronize the arts and sciences, not in terms of static empirical observation, but colluding to create a transient model of the universe devoid of representation in the conventional sense – an elliptical world oscillating between two poles.

Catherine L Clinger (University College London)

A Spectral Palette: Degas' Application of 19th Century Color Theory

In a rather abrupt manner in the mid 1880s, Degas' color palette leapt from the naturalistic color of his earlier career to vibrant colors which follow little to no laws of natural mimesis. This radical color shift dramatically changes the entire intent and meaning of the works. His consistency in the use of complementary colors during this period as well as the complexity and sophistication of the schemata of the works strongly suggests a conscious theoretical construction. I propose that these works are constructed according to scientific and aesthetic theories pervasive throughout the scientific, popular and artistic communities of the time. Specifically, his palette choices reflect theories of 19th century color theoreticians M E. Chevreul and Ogden Rood. While this has been explored extensively with the Neo-Impressionist Seurat, this theory has yet to be examined in the works of Degas.

Jessica Locheed (University of Louisiana Lafayette)

Iconic Objects, Iconic Images

Samuel Pierpont Langley selected an engraving of Mount Whitney by Thomas Moran to include in a nineteenth-century astronomy text. Ansel Adams chose a photograph of the Whirlpool Galaxy for an exhibition and book of artistic landscape photographs. These examples demonstrate the ease with which some pictures cross disciplinary boundaries, and raise questions about how these images should be appreciated in their new settings. Both object and its depiction cooperate to enable the blurring of distinctions between art and science. By comparing and contrasting astronomical images and American landscape paintings and photographs, this paper will examine how certain objects and images gain this iconic status. While sustained attention to a feature of the landscape or sky can ensure its place within a discipline's visual tradition, in other instances, a particularly evocative representation elevates its importance. As icons, these images circulate more widely and accrue additional levels of meaning.

Elizabeth A. Kessler (University of Chicago)

Session 9E: [Science Fictions]

Room 106

Chair: Stacy Alaimo (University of Texas at Arlington)

Vanished past and vanishing point: Black holes, the collective unconscious, and the proto-postmodernist African-American science fictions of time, space and Western history

My paper sets Jacobs, Wilson, and Chesnutt alongside Ellison, Morrison, and the postmodernists Reed, Barth and Pynchon. I lay out the linear Enlightenment narrative of progress, and then the postmodern assault on this narrative that illuminated society's 'swiss-cheese' memory, the cracks and black holes in the grand narrative. I establish that Jacobs, Wilson and Chesnutt were proto-postmodernists, writing out of the spaces that the Enlightenment march of time passed by; they anticipated the loophole before it became the more general situation in the last part of the twentieth century, offered relative time in place of linear logic and universal time, before Reed, for example, at the end of *Mumbo Jumbo*, wrote that "Time is a pendulum" and theories of relativity became general currency. These nineteenth century works collapsed the distinction between time and space and challenged the Enlightenment experiment that made time linear, mapped space, and rationalized slavery. The process of self-creation through autobiography loops time. It speaks into the silent places of the holes, but also functions for Jacobs and Ellison's *Invisible Man* as narratives of belated experience. Black holes are prisons, invisibilities and absences, but also refuges and positive spaces of alternate history, and my paper looks at the proto-postmodern holes from several angles, eventually proposing Jacobs, Wilson and Chesnutt as significant theorists of the individual and collective unconscious, and of history, time and space, whose writings forge a previously-unacknowledged relationship between science and nineteenth century African American literature.

Zoe Trodd (Harvard University)

The ecological ethics of monsters: evolution and corporeality in Greg Bear's Darwin series

Greg Bear's science fiction novels *Darwin's Radio* and *Darwin's Children*, in which a disease lurking in human DNA causes women to bear a new species of "human," spark many potent political and theoretical questions about the interface between "nature" and "culture," the agency of nature, and the constitution of the category of the human. Moreover, the novels offer a potent site to explore the productive overlaps between critical science studies, environmental ethics, and feminist corporeal theory, especially as all three of these fields have been radically transforming our understanding of matter-be it the matter of corporeality or of the natural world. Thus, I would like to bring the work of Karen Barad, Andrew Pickering, Vicki Kirby, and Catriona Sandilands to bear on these novels, in order to think through the possibilities for formulating models of matter that neither disavow the pervasive reach of cultural construction nor deny the agency, "intelligence," or force of human corporeality and nonhuman nature.

Stacy Alaimo (University of Texas at Arlington)

Session 9F: Drama, Science and Medicine

Room 107

Chair: Al Coppola (Fordham University)

'The Two Physicians': Diagnosing Donne in the "Devotions" and Edson's "Wit"

The distinctions between diagnosis as art and as act are of central importance both to John Donne in his *Devotions Upon Emergent Occasions*, and to Margaret Edson in her recent play, *Wit*. Minutely observing his sick body, the doctors who attend him, and the feverish workings of his own mind, Donne in his *Devotions* seeks a diagnosis in the broadest sense: a "thorough knowledge" of his physical and spiritual pathologies. In *Wit*, Vivian Bearing, a Donne scholar who meditates on self-knowledge in Donne's Holy Sonnets, also minutely observes herself in the last stages of ovarian cancer. She undergoes an experimental treatment that is crueler than the disease itself but, she is told, essential for the advance of medical knowledge. In this paper, I explore what Donne in his *Devotions* and what Edson's use of Donne in *Wit* can teach us about the art of diagnosis: the art of interpreting the body; turning the body and its symptoms into

language, into a coherent narrative, which by definition must have an ending; but also of being thorough by going "through" that knowledge: the compassionate knowledge of the whole person who suffers.

Heather L. Meakin (Case Western Reserve University)

Was early Royal Society experimentation a species of Restoration drama?

In 1667, Thomas Sprat described a successful experiment as a delightful dance with lady Nature. At the same time Robert Hooke's experiments were deflated by being likened to dramatic shows and Robert Boyle complained that the natural "works of God" were not merely "the tricks of jugglers." I argue that seventeenth-century natural philosophy developed much of its repertoire and discourse first within and later against drama. To illustrate this thesis I have selected two experimental routines by Robert Hooke. In both cases I locate Hooke's experimental protocols within a context of similar routines from the natural magic, masque, and dramatic traditions. Hooke created the fascinating paradox of making a new kind of performance-script by which he could in effect disavow the dramatic. The modern laboratory as we know it could emerge as a distinct kind of space only when contemporaries learned how to differentiate it from the stage.

John Shanahan (DePaul University)

What's Funny about a Virtuoso?: Conflicting Critiques of New Science in Three Plays from the 1670's

Three plays from the 1670's--Buckingham's *Rehearsal* (1671), Shadwell's *Virtuoso* (1676), and D'Urfey's *Madam Fickle* (1676)--ridicule the figure of the virtuoso in order to offer three different critiques of the new experimental science. In the *Rehearsal*, new science is in bed with commerce and heroic drama, all of which make empty, disconnected spectacles of "business" to gratify an appetite for blank fascination. In *The Virtuoso*, new science is also attacked as a species of willful self-delusion, but only insofar as it transacts no business of any use and interferes with the proper heterosexual exchange of wealth and kinship. In *Madam Fickle*, science is derided for being out of the mainstream, a compensatory reactionary behavior conflated with the collection of antiquities. The plays' differences show the complex way in which experimental science was perceived as part of a linked network of "modern" cultural ills, where the position of science was variable and contested.

Al Coppola (Fordham University)

Session 9G: Woolf, Borges, Plath

Room 107

Chair: Allison Dushane (Duke University, English)

Ariel and Electracy

Given Ariel's association with speed, whether Plath's horse or the Shakespearean sprite, one might ask to what extent the concept of electric, even electronic, speed informs Plath's volume. A brief glance at the dates of the Ariel poems will clue in the casual reader as to the speed with which they were written, a realization that can only be heightened by a knowledge of the domestic and psychological situation in which they were written. Indeed, some critics have spiritualized Plath's bipolar tendencies in such a way as to suggest that the Ariel poems were written in an almost medium-like state. This latter possibility presents a number of problems for critics reading Plath in relation to the confessional tradition. For instance, what sort of confession, if any, does a medium perform? My method for dealing with these questions calls for reading the Ariel poems as mediumistic events, but with an emphasis on the technological definitions of the word "medium." Drawing on Greg Ulmer's definitions of "electracy" as a conductive logic which brings different concepts together based on their concrete similarities rather than their abstract connections, I argue that Plath's Ariel poems are most effectively read as mediumistic switchboards which privilege neither the historical nor the personal, but instead shift from one register to the other, conductively rather than inductively or deductively, with the result of illuminating both.

Alan Clinton (Georgia Institute of Technology)

An Integration of Psychological Research Findings on Problem Representation and the Novelistic Problem-Solving of Virginia Woolf

Many eminent individuals have highlighted the importance of problem representation in problem solving. This presentation will rely on psychological research to characterize three heuristics which contribute to problem representation and detail problem representation by Woolf in her re-formation of the novel. The heuristics are perceptual rehearsal (saturation of the senses with the phenomenon of interest as a means of defeating inherent perceptual biases and increasing the impact of the unexpected), the distillation of inceptions (mental reconstructions of perceptions absent real-world "noise"), and the construction of emulations (mental analogs of simulations). Woolf recognized the 20th century shift from photographic to substantially psychological self-conceptions. In her novels, she sought to capture "all traces of the mind's passage through the world and achieve . . . [a] whole made of shivering fragments." The integration of research findings and Woolf's documented use of the described heuristics suggests avenues of exploration as to the nature of problem representation.

Maria F. Ippolito (University of Alaska Anchorage)

Tlön, Uqbar, Orbis Tertius: Borges, Science and Fiction.

Michel Foucault cites Borges as an inspiration for *The Order of Things*, as he reconsiders the process by which knowledge is obtained and ordered, analyzing the role of the discursive practices that produce, distribute and regulate knowledge. This paper crosses the threshold from the library to the laboratory and back again, exploring the link between fiction and science. First, I will briefly consider two constructivist accounts of the role of literature in shaping scientific practice, beginning in the seventeenth century with Steven Shapin and Simon Schaffer's account of Robert Boyle's "literary technology," and moving with Bruno Latour into the contemporary laboratory to observe the role scientific literature plays in "technoscience." Then, I will return to Foucault, and ultimately to a close reading of *Tlön, Uqbar, Orbis Tertius*, as Borges, through fiction, proposes that science and fiction rest on the common foundation of the language that renders their practice possible.

Allison Dushane (Duke University, English)

Session 10

Sat, Oct 16, 3:30 pm - 5:00 pm

Session 10A: Crossing scientific Boundaries: Moral, Philosophical, Ideological

Room 102

Panel Chair: Cat Yampell (Wayne State University/English Department)

Moral Transformations: Nineteenth-Century U.S. Imaginings of Medicine

In the introduction to *Medical Work of the Woman's Foreign Missionary Society* (1888), Reverend J. T. Gracey writes, "There is no phase of modern science which is more distinctly indebted to influences of the Christian religion than the department of medicine" (9). Here, Gracey, as well as many other nineteenth-century authors, links medicine to Christian morality. Inspired by Gracey's comment, I examine the way in which medicine is transformed into morality as represented primarily in two missionary texts, Mrs. J.T. Gracey's *Medical Work of the Woman's Foreign Missionary Society* (1888) and Lucy Seaman Bainbridge's *Jewels from the Orient* (1920). These texts reveal a pattern: as global movement increased and territorial boundaries were traversed, ideological boundaries strengthened in an effort to differentiate U.S. nationality from Chinese. To that effect, U.S. travelers often commented heavily on China's immorality and represented U.S. medicine as Christian ideology, imagined as moral, logical, rational, and free from immoral eastern medical and scientific superstitions.

Tamara Emerson (Wayne State University)

Manimal: Ethical and Scientific Hybridity in *The Island of Dr. Moreau*

The latter half of the nineteenth century was a time of social and scientific upheaval. A great alteration in ways of thinking was occurring due to increased access to travel and the beginnings of a global society; these opportunities contributed greatly to major scientific accomplishments and discoveries. As a result, British Victorian society had a great deal of anxiety to work through, particularly with Darwin's unsettling theories regarding the origins of man. H.G. Wells' work frequently engages with the current scientific and ethical debates of his time. The *Island of Dr. Moreau* questions the boundaries between humans and other animals, what it means to be human, and the ethics and responsibilities of scientific experimentation. Written after Darwin and participating in the debates surrounding vivisection and the attempts to define man's relation and responsibilities to animals, *Island* offers insight into the social and scientific barriers of the late nineteenth century, and their inevitable demise.

Jennifer Boyd (Wayne State University)

When Science Gets Involved: The Commodification of the Animal Other in Young Adult Science Fiction

Much of the contemporary Western world embraces the eating, wearing, and otherwise utilizing of animal without any regard for the source of nutrition, protection, or material comfort. Terms such as "meat," "hamburger," "steak," "veal," and "leather" allow consumers to distance themselves from the animal itself and thus enjoy the relative safety of ignorance. In a global society in which animals are treated as commodities, man continues to practice and promote speciesism. Two Young Adult (YA) Science Fiction novels, Peter Dickinson's *Eva* (1988) and Ann Halam's *Dr. Franklin's Island* (2002), reflect and subvert hegemonic notions of human supremacy. Through the horrors of scientific experimentation on unwilling participants, both human and non-human animal, *Eva* and *Dr. Franklin's Island* suggest a gradual shift in cultural ideologies from a clear hierarchical system to a blurring of the boundaries between human animal and non-human animal while simultaneously privileging the animal other.

Cat Yampell (Wayne State University/English Department)

Session 10B: Sciences of Affect III

Room 103

Chair: Richard Doyle (PSU)

Affect as Interpretation

Current approaches to affective computing - information systems intended to recognize, model, and respond to human emotional experience - often define emotions as transparently communicable informational units about whom the computational system, rather than the experiencing human, is the final arbiter. In this talk, we will illustrate alternatives in affective computing through the design of a device to support reflection on fear while backpacking. We see emotions not as passively experienced, but actively constructed by people through meaning-making. We therefore explore the co-interpretation of emotional experience between people and computational systems and critical reflection by users on their experiences with machines. Considering user interpretation in the design process enables literary strategies such as defamiliarization, exaggeration, and ambiguity to stimulate new interpretations of and experiences around systems. Simultaneously, we are stimulating critical reflection on affective computing in the technical community, based on more complex notions of what human experience is.

Phoebe Sengers (Cornell University)

Adam Kravetz (Cornell University)

The machine has no fear

In 1997 Deep Blue, the specialist chess playing computer built by IBM, defeated the world chess champion Gary Kasparov in a 6 match series. When asked about the reason for Deep Blue's success, one chess grandmaster replied "The machine has no fear". Within a few years of the Deep Blue victory, as work on affect became more visible in AI, it would become increasingly difficult to oppose affect and computation, the human and the artificial in the way many commentators had in 1997. This paper explores some of the conceptual challenges posed by the recent imbrications of affect and AI. This paper argues (via an analysis of fear) that the successful operationalization of the affects in AI may well depend on a recognition that AI has been affectively organized from the start. To the extent that we assume that AI has only recently come

into contact with the affects, we will be unable to grasp the generative, motivating, computational work that affects can do.

Elizabeth A. Wilson (University of Sydney)

Session 10C: Re-imagining Learning, Teaching and Tenure

Room 104

Chair: Kate Nickel (UNMC College of Nursing)

Can Feminism Transform the Technological University?: Building a Narrative Game to Reduce Bias in Faculty Evaluation

Feminist studies of science and engineering environments can change institutional promotion and tenure practices. I will describe my contributions as a consultant to a collaborative research project funded by the National Science Foundation that focuses on improving science, mathematics, and engineering (SMET) environments for women and underrepresented minorities, the Georgia Tech NSF ADVANCE Institutional Transformation project. I have coordinated the development of a learning instrument (ADEPT) designed to raise awareness of, and eliminate, bias in promotion and tenure deliberations. ADEPT (Awareness of Decisions in Evaluating Promotion and Tenure) includes case studies of fictional candidates, narrative games linking educational practices and research, references to scholarly and news accounts of bias in evaluation, and links to Georgia Tech resources on promotion and tenure; drafts of these materials are available at a website (<http://www.adept.gatech.edu>) and in an incorporated downloadable application. As the primary writer and coordinator of the ADEPT development team, I have worked to infuse issues from feminist science studies into the case studies and narrative games in the instrument.

Carol Colatrella (Georgia Institute of Technology)

Building New Media in the Academy

Building large-scale new media projects in academe presents an unique set of challenges. While such projects are becoming more recognized as part of legitimate academic activity, issues such as tenure assessment, time management under heavy service and research loads, and the question of integrating student involvement into projects (and the related issue of academic labour) all contribute to a high-stress environment with uncertain research payoff. In addition, the technical and design aspects of media projects must often be handled in an industry climate which charges rates far outside the budget capabilities of academic grants, especially in the humanities. This paper will give voice to academic scholars currently or recently involved in a large-scale multimedia project.

Helen J Burgess (Washington State University Vancouver)

The Company We Keep

This presentation explores the professional question: "How should I nurse?" and its intersection with the moral question: "How should I live?". A reflective inquiry method of philosophical dialogue and textual analysis will be used to explore the ethical and ontological implications about "the company we keep" with respect to textbook language, learning, and nursing knowledge. Textbook treatments of health problems, while essential, present the "facts" and a scientific view of disease. Short stories, poems, and other forms of literature offer a perspective we do not encounter in textbooks. This perspective offers new ways to think about our patients' experience. Nursing texts combined with literary texts create a new synergism for developing moral compasses and becoming wide awake to "the company we keep". The new story synthesizes the technical knowing with the emancipatory thinking and in so doing can transform nursing education. It can also help us learn about ourselves.

Kate Nickel (UNMC College of Nursing)

Session 10D: Art, Technology, Science and Beyond in the Later 20th Century

Room 105

Chair: Linda Henderson (University of Texas)

"The Work of Art in the Age of Mechanical Reproduction (Mass Production) and the Master Manipulators of the Marketplace: Duchamp, Warhol, Koons, Kinkade and Kruger

During the twentieth-century the role of art as commodity raised interesting and often barbed inquiry in which artist and audience alike came to understand art, in significant part, as transmutable goods readily exchanged in the marketplace. This paper considers ways in which Marcel Duchamp, Andy Warhol, Jeff Koons, Thomas Kinkade, and Barbara Kruger set up interesting playbacks on the forces of consumer culture. Duchamp, claiming art to be a bourgeois myth, embraced machine made products as stand-ins for the hand made object. Warhol, who wanted to "be a machine," proposed a further neutering, one intended to produce a bland sameness on everyone and everything. Today, Koons teases our gullibility, wrapping the banal with high-toned rhetoric. Kinkade's strength is not in the work, but exploiting our gullibility, having us believe that mass-produced prints are "original reproductions." Kruger employs commercial imagery and rhetoric, torquing them into an interrogation of our gullibility.

James W. McManus (California State University, Chico)

Paul Laffoley: The Artist as Occult/Scientific Visionary

For four decades, artist Paul Laffoley has maintained an independent course, operating outside the art world establishment. His paintings are unique image/text combinations rooted in 1960s hard-edge abstraction and other types of diagrammatic images (e.g., mandalas, scientific wall charts). Laffoley describes these works as "portals" to higher levels of knowledge or consciousness. Each painting includes at the bottom edge a list of names headed "Homage to" and followed by such figures as Abbott, Bergson, Bragdon, Dunne, Fuller, Gurdjieff, Hinton, Leadbeater, Ouspensky, Plotinus, Steiner, Swedenborg, Tesla, Wells, or Zöllner—as well Paul Davies, Dirac, Edison, Haeckel, Hawking, Mandelbrot." As these names suggest, Laffoley's worldview combines an extensive knowledge of mystical/occult philosophies with an interest in science and mathematics in a manner akin to many early 20th-century artists. This paper will explore Laffoley's art and theory, focusing specifically on his 1992 painting Dimensionality: The Manifestation of Fate.

Linda Henderson (University of Texas)

Parapsychology, Art, Trauma, and Science

This paper considers how diverse phenomena of mind share interrelated, psycho-physiological domains of consciousness that include human and animal telepathy, traumatic dissociation as well as the attendant parapsychological abilities that many traumatized individuals report, and the emerging cognitive realities and multidimensional awareness associated with virtual reality and telematic culture, including remote viewing in the military. Moreover, cross-dimensional modes of consciousness are increasingly seen to share common mechanisms with the non-local functioning of matter in the micro-world of sub-atomic particles. My paper will briefly present this broad field before turning to a closer examination of the work of Larry Miller, whose art for the past forty years has unified parapsychology, art, trauma, and science. I shall begin with "Mom-Me," 1973, a project in which Miller was hypnotized to become his mother, and discuss how "Mom-Me" is an antecedent for his current work on genetic code and problems related to the ownership of DNA.

Kristine Stiles (Duke University)

Session 10E: Nineteenth Century Machines and Psychology

Room 106

Chair: Henning Schmidgen (Max Planck Institute for the History of Science)

The Energetics of Empire

In his landmark paper "On the Motive Power of Heat" (1824), Sadi Carnot suggests that the steam engine, even more than the British Navy, is the reason Britannia rules the waves. By 1876, James Clerk Maxwell plays poetically with the notion that the reign of Force (Newton's and otherwise) is over. Anticipating the broad popularization of thermodynamics in which entropy and heat death become readily available tropes for figuring the anxieties of an empire in decline, these moments bracket the consolidation of the laws of thermodynamics. They suggest, moreover, the ways that concerns of nation and empire suffuse nineteenth-century energy physics even as that science comes into being. They raise the questions I propose to address: How is the discourse of nineteenth-century thermodynamics shaped by the aspirations and anxieties of the cultural moment? How does it reflect the broader concerns of class and empire, race, space, and nation?

Barri J. Gold (Muhlenberg College)

'Das Ur-Geräusch' - Rainer Maria Rilke and the practice of writing

In 1919 the German poet Rainer Maria Rilke wrote a short text on the 'Ur-Geräusch,' the primal noise. It is a recollection of experiments a teacher had conducted with his class more than 20 years earlier reproducing the newly invented phonograph. Rilke expected the faint sounds to remain forever in his memory but instead the visual marks cut into the cylinder of the phonographic apparatus come to haunt him. Decades later Rilke (re-)discovers these marks in the coronal suture of a skull and starts wondering what kind of (primal) sound might be generated by applying a phonograph needle to these traces. When he wrote this text Rilke was suffering from a writer's block and I will read the 'Ur-Geräusch' as an exploration of discourses on the automatization of writing - from the phonograph to spiritualism - that will allow him eventually to write again.

Antje Pfannkuchen (New York University)

Paper Worlds in Collision: Staging Space, Time, and Crisis in American Realism

In *The Railway Journey*, Wolfgang Schivelbusch discusses connections between late nineteenth-century industrial accidents, capitalist economic crises, and traumatic neuroses. According to Schivelbusch, a practice that served to meliorate the physical shock of railway transport was that of reading on trains. While scholars have suggested that realist literature symbolically contained social disorder, I argue that the shock of the nineteenth-century subject's integration into Schivelbusch's machine ensemble was also a concern of contemporary American literature. Moreover, if reading on trains simultaneously fostered the inwardness of "panoramic perception" and constituted a "stimulus shield" that disguised the dangers of rail transport, I will suggest some ways in which late nineteenth-century American realist literature might have been especially suited to these purposes. Finally, I will demonstrate some links between the growth of the industrial-transportational machine ensemble, literary representations of place and space, the inwardness of realist "character," and the shock experience of late nineteenth-century economic crises.

Franklin Ridgway (University of Illinois at Urbana-Champaign)

The Donders Machine: Deleuzo-Guattarian Perspectives on the History of Physiology

A machine is not a machine. According to Deleuze and Guattari, it is an active assemblage, combining organic and mechanic, cognitive and social components. My paper proposes to read the history of experimental life sciences from a "machinic" point of view. In their laboratories, 19th century physiologists created a wide variety of assemblages, serving to produce knowledge concerning organic functions such as locomotion, respiration, and, eventually, consciousness. In the mid-1860s, the Dutch physiologist Franciscus Cornelius Donders (1818-1889) conducted pioneering experiments on the physiological time of mental operations. Donders' experimental set up combined organic and mechanic parts: voices, membranes, and hands on the one side, rotating drums and tuning forks on the other. Meanwhile, a siren controlled the number of vibrations emitted by the tuning fork. To register results, sheets of paper were divided into regular columns. It was this time writing machine that allowed Donders to publish his well-known article on the speed of thought in 1868. As a result, it can be shown that Deleuze's and Guattari's notion of machine is essentially time-related.

Henning Schmidgen (Max Planck Institute for the History of Science)

Session 10F: Twentieth-Century American Writers and Science

Room 107

Chair: Doug Davis (Gordon College)

Race to the End: Biology, Identity, and Agency in Edith Wharton's *The House of Mirth* and *The Custom of the Country*

This paper examines Edith Wharton's treatment of eugenic tropes of race preservation and extinction in *The House of Mirth* (1905) and *The Custom of the Country* (1913). I assert that Wharton interrogates popular beliefs in "bad blood" (Lily Bart in the former novel) and "cultural degeneration" (Undine Spragg in the latter) by connecting these beliefs to class attitudes about socially deviant behavior and the production of scientific "truths" about race and gender. While both repeating and resisting biological discourses about human identity and agency, Wharton suggests that rather than natural selection it is artificial selection, a cultural practice of "weeding out" the "unfit" according to prevailing beliefs about race and gender, that causes Lily's downfall. Similarly, Wharton's portrayal of Undine draws more upon the shifting of race and gender markers due to social change and modernization than upon evolution. Consequently, both novels place limits on the idea of evolutionary progress.

John Bruni (South Dakota School of Mines and Technology)

Subjectivity and the Power of Metaphor: Joyce Carol Oates's *The Rise of Life on Earth*

Joyce Carol Oates' short novel *The Rise of Life on Earth* serves as a study of the ways in which evolutionary metaphors are adopted and applied in literature. Oates takes on the problem of the evolutionary narrative by exposing it as one of several possible patterns of the main character's development, and the novel effectively questions evolution as a reflexive or naturalized explanation for events. A framework of competition between a host of potentially determining influences on the character, and between guiding narratives or paradigms associated with those influences, de-centers evolution only to reinforce its predominance. With particular attention to religious belief, such patterns as legal procedure, careerism, victimhood, and the typically romantic arc of novels are laid out as possibilities alongside evolution and natural selection. Ultimately, however, Oates stacks the deck in favor of evolutionary narratives insofar as competition between these divergent paradigmatic possibilities becomes the major theme.

Paula Haines (University of Massachusetts Lowell)

The Artifactual World of Flannery O'Connor

In this paper I show how a theoretical framework derived from science studies and critical race studies can help us understand the central role of scientific, technological, and even human artifacts in Flannery O'Connor's fiction. I argue that O'Connor represents the interrelation of three worlds in her work: the visible world of social relations, the modern world of artifacts, and the premodern, invisible world of faith. O'Connor's South is home to scientific and manufactured non-humans—mummies, statues, prosthetic limbs, etc.—whose presence is not only essential to her plots, but also I argue to the meaning of her character's actions. Combining insights from Bruno Latour's actor-network model of the interrelation of the human and artifactual world with Ron Eglash's and Ralph Ellison's theories on the historical ties between black subjectivity and technology, I show how O'Connor's artifactual world—of humans and non-humans alike—serves as a conduit between the social world and the invisible world.

Doug Davis (Gordon College)

Session 10G: Sociology, Sociobiology, Fact and Fiction

Room 108

Chair: Andrew Burkett (Duke University)

Stephen Jay Gould and the Jamesian Tradition

In the 1870s and 1880s, when Spencerianism was the scientific vogue, William James ardently criticized it for its dualism of metaphysical idealism and deterministic materialism. The premise of this paper is that in our neo-Darwinian age, informed by genetic determinism and the field of sociobiology that formed itself in the 1970s, we are faced with philosophical dilemmas similar to those of James's time. Stephen Jay Gould's popular science writing and debates with the sociobiologists, I argue, follow the Jamesian tradition in attacking deterministic as well as idealist elements in current scientific thought. Like James, Gould argues

that the realms of nature and culture interact on the basis not of a reciprocal determinism but of anti-dualistic organizational principles whose chief components are pluralism, vicissitude, and creativity. This philosophy of science in turn informs Gould's late writings on the interrelations of science and literature. Michaela Giesenkirchen (Boston University)

From Fiction to Fact: The Function of Rhetoric and Literary Device in Bruno Latour's *Science in Action* (1987)

In his celebrated study *Metahistory* (1973), Hayden White investigates the ways in which the nineteenth century's most influential philosophers, historians, and critics employed literary trope, rhetoric, and device in their individual (re)constructions of historical narrative, and in so doing, White dedicates his text to an examination of the ways in which philosophic and historical "stories" are told. In my conference talk, I engage White's methodologies in order to investigate the relationship between scientific and literary discourse-modes – or, to put it more simply, between science and fiction. White's study assumes that, while historical and philosophic discourse-modes can be interpreted as a constellation of scientific and literary narratives, science and literature are, themselves, mutually exclusive forms of expression. Bruno Latour's work radically complicates a reader's ability to differentiate scientific "fact" from literary "fiction," and as a result many of his texts underscore the unnatural – and often epistemologically hegemonic – segregation of scientific "account" and fictional "storytelling" in traditional western philosophy and theory. In my conference talk I explore the ways in which Latour's *Science in Action* (1987) raises these problematics by proposing that the questions themselves are continuously registered and replicated at the level of the diegetic unfolding of Latour's text.

Andrew Burkett (Duke University)

Guest Scholar Session 2

Room 102

Sat, Oct 16, 5:30 pm - 7:00 pm

Animal Conversations: Braiding Natures and Cultures

Prof. Barbara Smuts (bioanthropology) and Donna Haraway (science studies)-both students of dogs, biology, and culture-discuss how specifically situated human beings and other animals come to know each other in the practices of science, daily life, and historical encounter.

Discussant: Barbara Smuts

Dance Party

Room 101

Sat, Oct 16, 9:30 pm - 12:00 am

Continental Breakfast

Sun, Oct 17, 7:45 am - 8:30 am

Session 11

Sun, Oct 17, 8:30 am - 10:00 am

Session 11B: Sexology and Psychoanalysis

Room 103

Chair: Lisabeth Hock (Wayne State University)

"Who can talk about sex?" Leopold von Sacher-Masoch, Richard von Krafft-Ebing and the formation of sexology

In his study "Neue Forschungen auf dem Gebiet der Psychopathia Sexualis" (1890) the psychiatrist and sexologist Richard von Krafft-Ebing named masochism after the then famous Austrian writer Leopold von Sacher-Masoch. Krafft-Ebing used the term subsequently in the following editions of his well-known "Psychopathia Sexualis". Sacher-Masoch, who is today mainly known through his novel "Venus in furs", is said to have opposed this classification. I will argue that Krafft-Ebing named masochism after Leopold von Sacher-Masoch not to show that the latter was a masochist, but to acknowledge his mastery in describing the phenomenon of – what Krafft-Ebing should later call – "masochism." Sexology had put sex on a scientific basis, and its terms soon permeated popular culture. Unintentionally many textbooks of sexology were received as erotic texts; less standardized desires found their expression in a new medium – photography, literature had lost its power and so had Sacher-Masoch's texts. Only Sacher-Masoch himself remained as an iconic figure, but not so much as a famous writer, but as a "masochist."

Birgit Lang (University of Oxford)

Shades of Melancholy in Gabriele Reuter's *From a Good Family* (1895)

Gabriele Reuter's 1895 novel, *From a Good Family*, recounts the story of Agathe Heidling, whose teenage fantasies and unrecognized talents give way in young adulthood to a pathological sense of fear and sadness. This paper will argue that *From a Good Family* represents Agathe a melancholic in three different ways: First, the depiction of Agathe's decline parallels descriptions of the clinical condition of melancholia as described in contemporary psychiatric texts. Second, *From a Good Family* inserts Agathe into the long tradition of the male melancholic artist. Finally, in searching for explanations for Agathe's inability to develop her talents, *From a Good Family* foreshadows Freud's exploration of the role of the conscience in his essay "Mourning and Melancholia (1915/1917)." Through the nexus of clinical melancholia, the melancholic temperament, and melancholy as psychic loss, *From a Good Family* explores the difficulty of the development of a female subject position in Wilhelminian Germany.

Lisabeth Hock (Wayne State University)

Session 11C: The Tech and Techne of Anime and Manga

Room 104

Panel Chair: Pamela Gossin (University of Texas-Dallas)

FanTech: How Consumer Technologies Fostered and Promoted Anime Fandom

In my presentation, I will examine how consumer-oriented technologies from the VCR to the home computer have shaped the growth and development of anime fandom in the United States. I will begin by discussing how the proliferation of home recording technologies in the 1970s allowed anime content to be shared from Japan to the US as well as to be distributed among social networks of American anime fans. This increased availability meant that one didn't have to have direct connections with anyone in Japan to have access to anime, but still had to "know someone" in the US anime scene. Thus, beginning in May 1977 with the first anime club, the Cartoon / Fantasy Organization, fandom organized itself in loosely connected networks through which information and tapes were exchanged. The advent of the Internet was

the next major technological breakthrough in anime fandom, and allowed fans to further expand their social connectivity. In covering these points, I will be demonstrating how such technologies made the availability of anime and the information about the related subculture less dependent on location. I will conclude with a look at the current state of online distribution of anime among fans (focusing on technologies such as BitTorrent) as well as how the industry has responded to this online fan culture through their commercial releases.

Brian Ruh (Indiana University)

Nature and Technology in *Nausicaa of the Valley of Wind*

Hayao Miyazaki's longest running work was his manga (comics) serial *Nausicaa of the Valley of Wind* which ran off-and-on in the magazine, *Animage*, from 1982 until 1994 and was ultimately published in a seven-volume book form. Set in a post-apocalyptic future 1000 years in the future it allowed him to explore his views on nature, humanity, and technology in an alien setting. Because he set out to do the story with no clear outline or ending in sight, this allowed him to change the story as he himself changed his views during the thirteen years. I will show how he went from a relatively simple viewpoint at the start of the series to a darkly ambiguous (and controversial among his fans) vision at the conclusion.

Marc Hairston (University of Texas-Dallas)

Female Cyborgs in Love in Japanese Manga

If a cyborg is female, whom shall she love? A gendered cyborg in love seems a scientific self-contradiction. But love becomes central when the machine is female and by implication fertile. Three major manga/anime let us consider variations on the theme. In CLAMP's "Chobits," cyberheroine Chi's ability to love transforms humans and other cyborgs. Masakazu Katsura's "Video Girl Ai" is an artificial being who becomes human through her mutual love with the young man Yota. In Masamune Shirow's "Ghost in the Shell," cyberheroine Motoko Kusanagi is courted by a cyberbeing with whom she unites in cyberspace to become the virtually divine progenitrix of a new kind of life. In all three, cyborg love does not replicate existing family and marital norms. Instead, cyberfemales in love mediate between disparate domains of machine/human, and realize their power to create intercourse between male/female and human/divine, all made pregnant with new genres of life.

Martha Cornog (Independent scholar)

Timothy Perper (Independent Scholar)

Sex--The Final Frontier: Misogyny and the Female Cyborg in Anime

Dr. Frankenstein did not reject his creations until he realized that, by creating a female monster that could sexually reproduce, he had crossed a moral line. Japanese pop culture (comics and animation) has continued this theme in several works. Female cyborgs are envisioned as sexual playthings ("Armitage III," "Ghost in the Shell"), yet they become suspect if they are capable of conception and birth. "Metropolis" features a cyborg who, while not sexual, becomes emotionally attached to a human, which jeopardizes her existence. And in the girls' romance comic "My Friend Frankenstein," the female created by Dr. Frankenstein in was supposed to be cold and unemotional, yet falls in love with the first monster and abandons her creator.

Patrick Drazen (Independent Scholar)

Cyborgs in Anime: Figures of Pivoting Fortune

The cyborg as a figure that marks the invasion of technology into the very identity of human beings, is a key character type in Japanese anime. This paper will examine the anime FLCL (Fooly Cooly) to discover the underlying structures and relations that might suggest why and how this prevalent figure appears.

Frenchy Lunning (Minneapolis College of Art and Design)

Session 11D: Robotics and Cybernetics

Room 105

Chair: Nick Hales (West Virginia University)

The Multiple Inventions of Cybernetics: A Case Study in Concept History

Cybernetics, the science of control, was a paradigm shift that ushered in today's wide variety of dynamical systems studies. The origins of the term "cybernetics" lie in the wartime work of Norbert Wiener, but the

cybernetic concept of "feedback" were discovered at least twice before: once by the Soviet physiologist Nicolai Bernstein, and once by (then) anthropologist Gregory Bateson, who called it "schismogenesis." The case parallels the pattern of multiple invention of the microcomputer: the first, "perfect" instantiation that exists only in a lab (Xerox); the second, broader introduction for "everyman" (Apple); and finally a depersonalized "clone" that becomes most popular (IBM). This case study of the "inventions" of cybernetics invokes the approach of "concept history," a movement associated with cultural historians in Germany and the Netherlands, which may synthesize the two contradictory approaches of contemporary cultural studies (as of Catherine Hayles) and the more traditional Kuhnian history of ideas.

Christopher Kuipers (Eastern Illinois University)

The Robotic Imagination

In the age of robotic toy bricks and robot junkyard wars, how has the image of the fictional robot changed? A transformation has occurred between the 18th-19th Century gothic automaton and the 20th-21st Century sci-fi robot. The algorithmic computer has replaced the mechanistic watch. It is my argument that the robot represents an inverse to the question of the cyborg; the technological human hybrid against the humanized computer. We must ask, what conception of humanity is revealed through the fictionalized robot? In this essay I shall examine the movement from the Gothic mechanized automaton (Swift, Hoffman, and Shelley) to the contemporary computerized robot (Asimov, Dick, and other contemporary authors) in conjunction with contemporary theory concerning virtuality (Baudrillard, DeLanda, DeLuze) and the subjectivity. I shall examine the robot from the perspectives of their structure, movements, creations, emotions, and cognitions. In this way, I hope to illustrate how the fictional robot reflects our shifting notions of what it means to be human.

Meredith Finkelstein (NYU)

Surveilling and Simulating the Red Planet: Informational Colonization of Mars?

A primary location where the technology of the directed gaze derives cultural form is warfare. As stated by Paul Virilio in *War and Cinema: The Logistics of Perception*, "The act of taking aim is a geometrification of looking, a way of technically aligning ocular perception along an imaginary axis." Planetary geologists have deployed the Mars exploration rovers, Spirit and Opportunity, to align their "ocular perception" along an "imaginary axis" directed at Martian soil. The information gained from this robotic "eyeless vision" is utilized to simulate the Martian topography in extensive detail. Are these scientists, to use Virilio's military analogy "taking aim" at Mars? To what degree does this act of scientific observation and simulation succumb to an informational colonization of Mars? I will explore these problematics in a discussion of the technologies currently being used to explore Mars' geologic past as well as technologies being developed for future unmanned exploratory missions.

Nick Hales (West Virginia University)

Session 11E: Film Studies

Room 106

Chair: Joe Milutis (University of South Carolina)

Film and Media Studies as a Paradigm for Critical Theory in the 21st Century

The total screen, in all of its forms, is precisely what Jean Baudrillard has called the "murder of the real," and is where representation becomes the technology of psychotectural design. Moving and static images now regulate how we organize and perceive our institutions and our lives, and are imperative in the manufacture and sustenance of political economies. Since private interests manufacture the most pervasive images (e.g. films, advertising, mass-media, etc.), these images are specifically non-egalitarian (i.e. controlled by the few, not the many), which is antithetical to democratic polity. It is because of this material evolution in the manner of cultural transmission that critical theorists need to communicate via image texts (in addition to print texts), in order to have audience in the dialogue of mass culture. This presentation includes a new media example of how critical theorists might create new media to engage mass culture on this new terrain.

Nicholas Ruiz III (Florida State University)

Technosubjectivities in popular film

Technology studies have presented concepts such as 'cyborgs' and 'actants' in order to talk about the mutual constitution of humans and technology. Regardless of how inspiring these notions are and the important work they do it has not been that easy to use them consistently in research on humans and technology. Many works in the field end up picturing technology as external to human subjectivity. In order to think through the meaning of non-humanist technosubjectivity this paper bypasses the self-representation of human actors as governed by interior states by taking the issue to the movies. In film both humans and technology are scripted characters without interiority. Still, they have to be constructed in ways that make them comprehensible to a wide audience. Hence, analysing ways in which humans and computers link in movies may say something about how subjectivities are produced in different relations between humans and artifacts.

Catharina Landstrom (Goteborg University)

Plasma Physics, Ether, and Cosmogenetic Filmmaking

In *Ether, God, and Devil*, Wilhelm Reich posits that the only true knowledge is knowledge of the "orgastic plasma pulsation." This plasmatic principle--Reich's ether--was conceptualized contemporaneously with NASA's mapping of plasma fields, which gird the planet. This rediscovery of a cosmic ether more than 70 years after its official debunking would inspire experimental filmmakers in the 60s to explore the ways in which, through the Reichian overlay of libido with ether, cosmic consciousness intersected with the more personal expression of creative and sexual energy. As part of larger research and a book I am completing on the ether, I would like to give an overview of how science magnetized artistic practice through this revision of the ether in the 50s and 60s. Specifically, I will be asking how a knowledge of these interconnections force a re-evaluation of what Eugene Youngblood called "cosmogenetic filmmaking," practitioners of which included Jordan Belson, Kenneth Anger, Harry Smith, the Whitneys, Jud Yalkut, and Scott Bartlett, among others.

Joe Milutis (University of South Carolina)

Session 11F: Faith and Science Across Cultures

Room 107

Chair: Kathleen Duffy (Department of Chemistry & Physics, Chestnut Hill College)

Buddhism, Science, and the Art of Conversation

This paper considers the significance of "conversation" as a structural metaphor in recent studies of the connections between Western science and Buddhism. The past two decades have seen the production of a substantial body of work that brings together Buddhism and science under the explicit language of "conversation" or "dialogue" and which often is presented as the narrative of a particular conversation. This paper argues that the conversation metaphor actively influences the claims by both Buddhist practitioners and Buddhism-interested scientists, whose parties' claims to truth are legitimated in a Western context by the authority of both mainstream scientific practice and, to a lesser extent, Buddhist religious experience. The construction of these truth claims is accomplished in a double move wherein representatives of both sides speak under the authority of a coherent "Buddhism" or "science" and at the same time verify that authority by discovering commonalities between the two traditions either broadly conceived or in relation to a specific Western scientific object.

James E. Richardson (Duke University)

The Clash between Faith and Empiricism: Science in Chaucer's "The Nun's Priest's Tale"

Scholarship places "The Nun's Priest's Tale" as one of the latest works of The Canterbury Tales, written between 1392 and 1400. This date establishes the tale firmly within the confines of centurial literature, literature characterized by doubt, fear, and superstition. Chaucer and his peers were facing the end of a century; the monarchy was in chaos. Chaucer's tale of Chauntecleer and Pertelote reflects this sense of unease, of questioning established knowledge. His tale seeks to establish a balanced intellectual position that could accommodate traditional belief and the skeptical attitude toward belief that was the inevitable result of empiricism. I will show how Chaucer treats this conundrum through his rhetoric, how he reveals the clash between faith and empiricism not only thematically but structurally. This layering leaves the reader with the sense that, if the author is committed to anything, he is committed to pluralism. Rather than

choose one ideology over the other, Chaucer prefers to transcend the dichotomy and give credence to both, to "Taketh the fruyt, and lat the chaf be stille".

Sandi Reynolds (Texas Woman's University)

The Cellular Automaton and the Cosmic Tapestry: Wolfram and Teilhard Model the Universe

In his best seller, *A New Kind of Science*, Stephen Wolfram presents his attempts to understand the origin and nature of complexity and to model the many facets of nature with simple programs. Preliminary results indicate that the behavior of spacetime can indeed be modeled with programs called cellular automata and causal networks in which the fundamental reality is the interconnection between network nodes. Some seventy-five years ago, Jesuit paleontologist, Pierre Teilhard de Chardin (1881-1955), in his book, *The Human Phenomenon*, proposed another model of the cosmos, attempting to organize the tangle of our experiences with a metaphor that I call the cosmic tapestry, a metaphor that also focuses on interconnections within the evolutionary cosmos. In this paper, I provide a short introduction to Teilhard's cosmic tapestry and to Wolfram's new science. I then suggest parallels between these two views of the universe, noting particularly their common emphasis on interconnection.

Kathleen Duffy (Department of Chemistry & Physics, Chestnut Hill College)

Session 11G: Considering Chemistry

Room 108

Chair: Jill Clark (Fisk University)

Transformations of Matter and Mind: Alchemy, Chemistry and Narrative

Transformations of Matter and Mind: Alchemy, Chemistry and Narrative Change and control of change are the central preoccupations of human science and art. In this paper we explore the interlocking histories of alchemy, chemistry and narrative by looking at the work of Anglo-Irish thinkers Robert Boyle and W.B. Yeats. Both writers seek to understand the stubbornness and transformative qualities of matter and mind. Boyle wagers his health against the vehicles of material change, while Yeats pits his mind against archetypal change agents of his internal landscape. Both work from a context of cultural and intellectual upheaval. From this historical ground we investigate the current state of chemistry, where synthesis has outstripped transformation and the science often creates the material studied. We ask where the alchemical basis of chemistry is evident today and how alchemical processes appear in contemporary narratives such as those of Haruki Murakami. We posit that chemical and narrative understandings of change are reflexive.

Carol S. Long (Willamette University)

David Goodney (Willamette University)

'The Whole is Simpler Than Its Parts': Historicizing and Politicizing Muriel Rukeyser's *Willard Gibbs*

My paper examines Muriel Rukeyser's 1942 biography of Willard Gibbs, the nineteenth-century Yale scientist and founder of physical chemistry. While Rukeyser is mostly remembered for her poetry, this biography encompasses many of the themes of her work, especially her interests in the intersections between science and the humanities, what was then an emerging feminist ideology, and a critique of capitalism and imperialism. My paper looks at how Rukeyser's biographical method mirrors Gibbs' scientific method, and Rukeyser's general approach to studying history. Additionally, my paper comments on how Rukeyser innovatively makes connections between Gibbs and the major literary figures of his lifetime, such as Emily Dickinson, Walt Whitman, and Herman Melville. Through applying a feminist analysis to Rukeyser's already unconventional feminist (and Marxist) approach to Gibbs' life, my paper concludes that through historicizing and politicizing Rukeyser's *Willard Gibbs*, we can gain a better understanding of Rukeyser's poetic and theoretical works as a whole.

Karen Weingarten (City University of New York)

The Chemistry of the Modernists

Joseph Conrad, Ezra Pound, and T.S. Eliot were all Modernists who used chemical metaphors to explain the structural components of literary composition. Conrad compared his process of developing the plot for *The Secret Agent* as "what a student of chemistry would best understand" as "precipitating the process of crystallization in a test tube" (xxxv). Pound based his structuralism within terms of the resonant powers in

crystalline structure and energies, and he developed his own "chemistry of the present" in relation to Allen Upward's crystal as a synecdoche that reified his vision of cosmic poetic economy. Eliot then developed his analogy of the Catalyst, the poet who develops a specific medium of poetry in response to the "chemical reactions" of objects used to create that poetry. Many modernists were influenced in their use of these chemical metaphors by Walter Pater's claim that a critic works "as a chemist notes some natural element" from *The Renaissance: Studies in Art in Poetry*.
Jill Clark (Fisk University)

Session 12

Sun, Oct 17, 10:30 am - 12:00 pm

Session 12A: Psychosomatic Science

Room 102

Chair: Robyn Smith (Carleton University)

When Gestural Work Becomes Repetitive: The Problem of 'Cyborg' Cumulative Trauma

RSI, or repetitive strain injury, has been called "the occupational hazard of the '90s" and continues to account for 60 percent of all workplace injuries in the U.S. Ironically, however, this epidemic presents us with a strangely invisible form of injury. The concept of the "cyborg" examined in this essay refers to the utopic category of subjectivity theorized by Donna Haraway in her famous essay "A Manifesto for Cyborgs." Her work has since been criticized for overlooking real-life "cyborg" workers and the pain and suffering inflicted on their bodies. This tendency continues in a great deal of new media studies inspired by Haraway's work. This essay attempts to overcome this erasure by telling the story of the strangely invisible epidemic of RSI. This form of cyborg cumulative trauma gives us a model for thinking about how the body does not simply smoothly transition into a human/technology hybrid, but can and does resist as it carries the burden of that forced cyborg hybridity in the form of physical pain and injury.

Michael LeBlanc (University of California, Riverside)

Histaminic Discourse

"Allergic" is how John D. Caputo characterizes a certain violent, repetitive, habitual reaction to deconstruction. In this paper I want to suggest that allergy can also serve as an apt trope for an alternative to the metaphysical construct of identity exposed by Derrida. To this end, I will invoke Eve Kosofsky Sedgwick's analysis of the current cultural trend that accrues benign habits, such as shopping, under the banner of addiction. Stepping up to her challenge to move away from this slippage, I want to posit a theory of allergy and habit instead of addiction and identity. Allergic reactions in which the immune system turns against the body complicate the relation to self and other; rather than congeal into an identity, this form of allergic habit instead makes the self a stranger to itself. Thus the model of allergy-as-habit allows us to consider difference beyond the constraints of a metaphysical model.

Isabella Winkler (St. John's University/ Pratt Institute of Art)

Psycho-stimulant Pharmaceuticals and the Biopolitical

The contemporary pharmacological regulation of what are seen as disorders of affect and attention marks a transition that involves, among other things, the molecularization of biology, the reconception of the human, and emergent forms of cultural production under new modulations of the biopolitical. Although the problematic of attention/distraction has been recognized throughout the twentieth century and figures centrally in Benjaminian critical theory, current instances of these phenomena and related problems, particularly their construction and management by pharmacology, present new conceptual challenges. Drawing on the interpretive resources of both science studies and contemporary theorizations of capitalism, and focusing on the discursive conformation of Attention Deficit /Hyperactivity Disorder and operations of the psycho-stimulant pharmaceuticals market since 1990, this paper seeks to give productive articulation to these conceptual challenges. Specific theorists deployed include Bruno Latour, Michel Foucault, Nik Rose, and Giovanni Arrighi.

Heather Pilatic (Duke University)

Angels of the Nation: The Role of Vitamins in Canadian Government Nutritional Science Discourse 1929-1939

The emergence of the vitamin concept within nutritional science changed ideas about human needs and necessitated a shift in notions of entitlement to food. With understandings of nutrition, presented by the League of Nations in the 1930s, the government of Canada undertook to research the organization of the

country's social relations around food and diet. Subsequent research and education attempts aimed to re-organize these social relations according to emergent understandings of nutrition. I argue that vitamins are conceptualized as providing inclination to relations and so are suited to the work of shifting social relations around economies of food. I review scientific monographs and essays as well as Canadian government publications and correspondences to demonstrate that vitamins are food messengers during metabolism, they are that which enable us to balance the food in our diet and they are that which enable us to balance the food in our nation.

Robyn Smith (Carleton University)

Session 12B: Nineteenth Century Disabilities

Room 103

Chair: Geralyn Strecker (Ball State University)

The Nature of Disability: The Body, the Country and the City

Part of a genre of nature appreciation novels, Gene Stratton-Porter's *Freckles* tells the story of a disabled foundling who moves to the country and to guard a forest for a lumber company. Freckles' broken body symbolically reconstitutes a body politic and a national subjectivity that was increasingly endangered after the fragmentation of the Civil War and after Turner's declaration that the frontier longer existed. In *Freckles*, the forest is a place where the social inscription of bodies is suspended. However, Stratton-Porter contrasts the brief solitary pleasures of nature with an overwhelming emphasis on the social politics of the body and the mother's body as the causal site of disability. The origins of Freckles' disability reveal his family pedigree and, simultaneously, a preoccupation with vanishing class distinctions, a distrust of the working class, an anxiety over urban labor and lifestyles, and a hierarchy of disability that privileges accidental over congenital impairment.

Elizabeth Donaldson (New York Institute of Technology)

"Dick versus Dick": The Threat of Victorian Impotency

By 1857, a contributing physician to London's *Lancet* medical journal is willing to define impotency as an emergent disease, one characteristic to and indeed generated by the cultural milieu of mid-nineteenth century Britain. Borrowing Edwin Barrett's terminology, the "Condition of England" had become one of persistent plague and overriding psychosis. Impotency was not only a troubling disorder, but also one caused by the characteristic problems of the time: a rise in the middle class, aristocratic traveling, and a surge in city pollution. What I am positing is a new understanding as impotency comes to write itself as the dominant and pervasive fear of normative Victorian London. More than this, however, I am also arguing for a re-understanding of both Dickens and Stoker as impotency writes itself into the overwhelming – and now realistic – terror of the novels. Every man's fear, every man's disease, impotency dominates the discourse underlying the fictions – social as well as literary – of its day.

Christie Harner (Northwestern University)

'In [their] disordered fancy': Bipolar Imagery in the American Renaissance

Works like Poe's "The Fall of the House of Usher," Hawthorne's "Young Goodman Brown," and Melville's "Bartleby the Scrivener" have long been described as gothic, surreal, or bizarre. However, such readings are greatly the legacy of nineteenth-century misunderstandings of psychology—particularly the "melancholia" and "despair" from which these writers suffered. Although we have understood the biochemical and genetic roots of manic-depression for over a generation, located the "bipolar gene" in the human genome project, and welcomed psycholinguistics as a field of inquiry, critics still cling to traditional explanations of some literary texts. My presentation will argue such stories could—and often should—be read more in an informed psychiatric context, not to force meaning, but as a vehicle for exploring meanings that lay hidden under tattered theories of "hypochondria." I will use hypertexts to demonstrate uses of bipolar imagery during the presentation and post them online for colleagues' future contemplation.

Geralyn Strecker (Ball State University)

Session 12C: Digital Media/Remediation

Room 104

Panel Chair: Dawn Dietrich (Western Washington University)

The convergence of new media theory and mimetic anthropology

Particular recent work in new media studies, like Bolter and Grusin's *Remediation* (1999) and Winkler's theory of depositing and practice (*Configurations*, 2002) demonstrate media theory's convergence with mimetic anthropology (René Girard, Eric Gans)--a new synergy indeed. Bolter and Grusin, for example, catalog the effects of digital media's imitation of, and rivalry with, other older media; the web news page thus "remediates" the print page and the newspaper, just as the newspaper (like USA Today)--and the CNN news screen--now copy the representational strategies of the exemplary website. But even as the pair downplay their own adaptation, their own remediation of Marshall McLuhan's earlier idea that "the content of any medium is always another medium", their professed discovery of "something exponentially more powerful than what either of us brought to the table" indeed admits desire itself is imitative, and suggests remediation, coupled with Girard's theory, can account for much of the propagation and conflict of human culture in general--contemporary culture especially. Tracing Bolter and Grusin's remediation of McLuhan and others, this paper thus explores the various theories in light of the anthropologies of Girard and Gans. Matthew Packer (University of Portland)

Re-mediation and Precursors to Virtual Reality

In "Through the Looking Glass," Donna Haraway states that virtual reality is a "learned experience. It's like the history of perspective in painting. You don't know how to do it, you literally don't know how to experience it: it's like smoking grass for the first time." More recently, however, some writers have pointed out that virtuality is not a modern day phenomena. Within Western artistic practices and popular culture, virtuality has a long history: from 16th century Giovanni Battista della Porta's walk-in camera obscura to 19th century Charles Wheatstone's invention of the stereoscope and Joseph Plateau's fabrication of the phenakistiscope. This paper looks at a number of contemporary artists who remediate these precursors to virtual reality, reworking the mechanics of 3D vision and incorporating a new visual syntax into their practices. Their works demonstrate that a historical reevaluation of virtual reality and its current critical frameworks is needed.

Barbara Miller (Western Washington University)

"After the Game is Before the Game": Remediation in Run, Lola, Run

While a number of film scholars have written about the "video logic" of *Run, Lola, Run* (Lola Rennt, 1998), there has been little theorization of the film's "remediation" of video-games and cinema.

"Remediation," as defined by Richard Grusin and Jay Bolter, involves the appropriation of one medium by another. In Tykwer's film, remediation results in a restructuring of cinematic space and time. Time, in the film, moves not only forward and backward, but also loops upon itself, making it possible for Lola to access knowledge gained from her earlier "runs." Similarly, in video-gaming, a player can access previous events and replay them, in order to change outcomes. Cinematic space is also altered when the same events, chronology, and locations are "replayed" with slight variations. This reformation of the film's spatial logic fundamentally alters predictive capabilities of the spectator, resulting in the construction of new cinematic subject.

Dawn Dietrich (Western Washington University)

Tony Prichard (Western Washington University)

Session 12D: [Artists and Science]

Room 105

Chair: Donna Marshall

absolute West

It has been said that we are disappearing into Images.... It might also be said that ~It was always intended to be this way. Robbin's absolute WEST is a cross disciplinary and multi-faceted project with its primary

focus upon a series of large scale digitally rendered images - The Mirage Series, as well and the creation of a virtual performance space. Based upon the narrative complexities and geometric topologies of the world(s) in which we find ourselves living, "absolute West" considers the collision of our material, cinematic, virtual and telematic conditions through Frank Gehry's latest architectural project in Los Angeles, the Disney Concert Hall. The two phases to this digitally-based project, "Mirage" and "absolute West", unfold at various stages throughout 2003-04. In the globalized circulation of images, the belief in things which we know have no substance, is only surpassed by our ability to enjoy them in spite of this knowledge ... and perhaps all the more so. "absolute West" is, essentially, an inquiry to the pleasures and jeopardy of these modes of imaginary living within an aesthetic of a hyper-stylization and mediated realities — a process of reading things as simulations but knowing at the same time that they are quite real. Christiane Robbins (Stanford University)

doodles, los garabatos, le griffonage, uno scaraboccio

the *lab technician* tells **4 stories** about some similarities and differences in meanings.

Sarah smiley (Massachusetts College of Art)

Nanocomposition

Art can bring an inventive, exploratory interface to cellular and intracellular cancer research that is charged with fantasy and wonder. The present-day scientific and reductionistic approach is to radiate and kill the cancer cell. When I observe cancer cells under a light-powered microscope- not as a scientist, but as an artist-I see rivulets and streams of healthy tissue being usurped, twisted, and pulled into torque-like, aggressively charged striations of physiological horror, but I also see an odd kind of chaotic beauty. Is there another way to observe this disarray of indeterminacy and disorder, this prolific growth of infinite space? What if through nano-technology, science, and art joined in order to engage molecular mechanisms in a kind, loving, aesthetic, and wondrous exploration?

Steven J. Oscherwitz (University of Washington)

PRIMAL LANDSCAPE: NOTHINGNESS, ROCKS, AND QUANTUM PHYSICS.

Paintings/Presentation 2004

A walk into LANDSCAPES OF NOTHINGNESS, through PRIMAL MATTER i.e., ROCKS and further toward QUANTUM WAVES AND COLLAPSING PARTICLES. Where is the starting point of landscape? Can I connect, as a conscious being, to this primal level, this creative place, through my mind, my imagination? These are the questions I am asking. These are also the questions many scientists are asking as well. Whether landscape is deconstructed analytically or seen as whole systems, there is implicit, in the answers to our questions, a conscious awareness. We are entangled with our landscape. As science continues to discover fascinating theories, artists now have new landscapes to explore. I will give a presentation of some of my work, mostly paintings, along with a brief explanation of the basics of quantum physics.

Donna Marshall

Session 12E: Travel: Gender, Race, Empire

Room 106

Chair: Holly Henry (California State University, San Bernardino)

Neglectful Mothers, Accusatory Babies and Reproductive Strategies: Nineteenth Century Female Travelers and the Paradigm of Motherhood

In *The Descent*, Darwin acknowledges the potentially revolutionary effect of his ideas on gender relations and reproductive strategies, imagining a world ruled by bees where "our unmarried females would... think it is a sacred duty to kill their brothers, and mothers would strive to kill their fertile daughters" (I.73). The Darwinian revolution did not just change how women were viewed *by* science, but how women could view and participate *in* science. Travel narratives served as important sources of scientific information and female travelers were well aware of their power to control and manipulate data. Travelers such as Mary Kingsley and Marianne North function as potentially subversive members of the scientific community, particularly in examining female reproductive strategies. What could be coded as "bad" mothering is

shifted, in their accounts, to pragmatic decision-making justified by environmental conditions, valorizing non-European women for their control over their bodies and offspring.

Abigail Mann (Indiana University)

Modernism and Egypt: Amelia Edwards and Vita Sackville-West

Recent publications have touched on but not fully theorized the import of travel to the British geographical imagination at the turn of the century. Elaine Freedgood's *Victorian Writing About Risk: Imagining a Safe England in a Dangerous World* (2000) looks at England's insular geo-politics. I wish to consider how modernist travel narratives attempted to reposition England, in the mind of popular audiences, in a more global community. In particular, my paper will focus on two British women writers, Amelia Edwards and Vita Sackville-West, who traveled to Egypt. Edwards's *Pharaohs, Fellahs, and Explorers* (1891) offered for the serious traveler an in-depth guide to the study of Egyptian culture. And Sackville-West traveled to Egypt just after the opening of the tomb of Tutankhamen and published her account in *Passenger to Teheran* (1926). Their accounts of ancient Egyptian sites suggest how travel writers generated new perspectives that contributed to a modernist rethinking of imperial notions of nation and nationality in the context of a larger global community.

Holly Henry (California State University, San Bernardino)

Session 12F: Margaret Atwood's *Oryx and Crake* (2003)

Room 107

Chair: Karin Hoepker (Friedrich Alexander University)

Margaret Atwood's Science in *Oryx and Crake*

Margaret Atwood's admission that she wrote *Oryx and Crake* shortly after the publication of *The Blind Assassin*, and well before she had expected to write another novel, speaks to her sense of its urgent message. This new futuristic novel that she classifies as speculative fiction offers a bleak vision of a post-Apocalyptic world in which genetic engineering and environmental deterioration have virtually destroyed humanity. That Atwood continues to be extremely concerned about the impact of genetic engineering in the present century is made clear in part by her willingness to contribute an essay to the May 2004 issue of PMLA whose special topic is "Science Fiction and Literary Studies: The Next Millennium." Just as she was preoccupied two decades ago in *The Handmaid's Tale* with the possibility of a cultural backlash against the last century's advancements in Women's Rights, so too in *Oryx and Crake* she is concerned with the distinct possibility that the West may be already befouling its nest so completely that future scientists will be maddened enough by the threat of extinction to resort to engineering a replacement species of beings capable of surviving physically in a poisoned! environment but at the cost of virtually everything we have traditionally identified as "human."

Earl G. Ingersoll (SUNY College at Brockport)

Toxic Thoughts: Margaret Atwood's Dichotomous Dystopia

Oryx and Crake depicts the destructive effects of cognition separated from embodiment and ethical concerns. The change from *Surfacing*, where reconnection to the natural environment restores personal "wholeness", through *Bodily Harm*, where privileged status cannot prevent bodily vulnerability, to *Oryx and Crake*, where a multiply gated community is penetrated by an engineered deadly virus, suggests an accelerating crisis in human / nature relations. Atwood's dystopia represents a negative extension of polarized, dichotomous thought in its exclusionary boundaries and gender relations. While the compound walls fail to function as protective barriers, the narrator's fortified immune system does. Francisco Varela and others have suggested a less oppositional immunological model than that of protecting "self" by rejecting "other." Varela's model of embodied cognition and Donna Haraway's webs of relation offer a positive counter-current to the fracturing dichotomies. Atwood's dystopia ends outdoors, with a pending encounter open-ended enough to provide some glimmer of hope.

Mary Newell (Fordham University)

Reading *Oryx and Crake* (2003)

Understandably for such a recent publication, Margaret Atwood's novel has not yet received critical attention beyond the initial popular reviews. My discussion would begin to extend its reception with a

straight-forward consideration of some literary aspects of the work: the *_Frankenstein_* motif; the effect of the implied narrator (pronounced in the novel's repeated rhetorical figure of 'correction'); the pertinence of Steven's "The Snow Man" to the novel's protagonist ("Snowman"); and, most prominently, the novel's use of language to reinforce its message (archaisms to figure extinction; neologisms for an environment built on artificially recombined, spliced organisms).

Nelson Hilton (University of Georgia)

FutureNature and the End of Man. Concepts of "Life" and "Nature" in the fictional worlds of Crichton's *Prey* and Atwood's *Oryx and Crake*

Within the context of imminent social and epistemic change in the wake of technological innovation, literature often serves the function of a testing ground or textual lab setting. Fictional worlds offer room for extrapolation and here explore, how terms and concepts of "Nature", "Life" and "Environment" shift within the intersectional discursive field of Science and Society. Atwood's latest novel employs as narrator an anti-robinsonian figure of "the last man", a chronicler of the end of humanity-as-we-know-it – a development brought about by molecular biology gone awry in a subgroup effort to counter a future economy of genetic tampering and exploitation. While both novels discuss human subjectivity and post-human alternatives, Crichton's *Prey*, a novel on nanotechnology, explores aspects of a scientifically and socially predominant logic of evolution and descriptive patterns of complex, non-linear systems. Here, I will try to show how especially artificial life and phenomena of emergence might change perspectives on the notion of "life" and also challenges concepts of (essentially humanist) agency.

Karin Hoepker (Friedrich Alexander University)

Session 12G: Mapping, Traveling, Living in China

Room 108

Chair: Hongbing Zhang (University of Chicago)

A General Analysis: the "Map of the Expedition of Kings Wu Wang and Chengwang against the Shang Dynasty" and "Map of the Eastern States" on the Inscription of "Yi Hou Ze Gui", and Maps of the Western Zhou Dynasty

"Yi Hou Ze Gui" is the bronze ware of Western Zhou Dynasty, which has been cast nearly 3000 years ago. More than 120 words have been typecast in the bottom within the bronze, and some characters among those words have described the maps at that time. In this paper, we would discuss the management and operating to the map in the Western Zhou Dynasty, and analyze the significant meaning of these two maps in the cartographical history. According to the analysis about various kinds of historical documents, we think that the record about the map in the inscription on the "Yi Hou Ze Gui" is the earliest characters documents about the map in the Chinese cartographical history. In addition, we refer to a lot of classic documents, such as *Zhouli*, and then we think that there is a very high scientific level of surveying and mapping technology in the map of the Western Zhou Dynasty.

Zilan Wang (The Needham Research Institute)

Women and Modern Transportation: The Ethical Limits of the New Fiction

In this proposed presentation, I would like to examine the relationship between Chinese women and modern transportation in Wu Jianren's so-called "new novels" published in the first decade of the twentieth century. Rather than focusing on the influence of imported Western ideas on Chinese women at the time, especially on what this supposedly spiritual and intellectual influence would mean to the emergent subjectivity of modern Chinese women, this presentation is to study the possibilities arising from the interactions between Chinese women and the material modernity in China, such as the steamship and railway train. The specific question it asks is: what new possibilities does the modern transportation offer to Chinese women and how are these possibilities, as potential spaces of some new subjectivity for Chinese women, contained and appropriated into the nation-building project that was stipulated by Liang Qichao and others as the primary goal of the new novels?

Hongbing Zhang (University of Chicago)

Wrap-up Session

Room 102

Sun, Oct 17, 12:00 pm - 1:00 pm

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