SLSA 2017 Program

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Thursday, November 9, 2017, Session 1: 2:00 PM – 3:30 PM

1A "Precarious Geologies, Mediated Temporalities & the Politics of Rupture: Art/Image/Text" *MU236 Mohave*   Chair: Zoe Hughes

Out of Sight: Shift Register and the Materiality of the Buried and Hidden
Stupica, McKenzie (Northwestern University; mstupica@u.northwestern.edu)

In "Out of Sight: Shift Register and the Materiality of the Buried and Hidden," McKenzie Stupica (Northwestern University) explores the peculiarity of the human inclination for concealing waste and externalizing information to be preserved for posterity. In an attempt to document human industrial activities and their respective planetary effects, the scientific-artistic project Shift Register confronts the anthropocentric delusion that contemporary energy and communication infrastructures exist in an immaterial realm far away in space and time – a placeless place – elusive and impervious to earthly temporalities. Manifested as a series of Earth Observatory Arrays (EOA), publications and workshops, Shift Register – led by the artist-research team of Martin Howse, Jonathan Kemp, and Jamie Allen – constructs temporary field-sites worldwide that characterize and generate knowledge about our worldly traces. Stupica draws her critical attention to a specific EOA installation that explores end-of-life and burial rituals. With radioactive minerals embedded within, this EOA forms a contextual relationship between the metamorphosis and transfer of states symbolized by death rituals and modern computation and industrial processes. It blurs the lines between embalming and preservation of data, containment of the dead and containment of hazardous waste. Whereas end-of-life rituals serve as a means to cope with the transformation from bodily to ethereal existence, Stupica argues the perception of Earth as a perennial platform for human activity creates a superficial sense of stability and control over our environment, assuaging fears of existential impermanence.

Climate Change, Coal, and the Politics of Revolt
Leveton, Jacob Henry (Northwestern University; jleveton@u.northwestern.edu)

With the mobilization of coal as a fossil fuel driving industrial-scale production beginning in the late 18th century, labor became the point of mediation between society and the earth's geology. In his paper "Climate Change, Coal, and the Politics of Revolt" Jacob Leveton develops a new theory of labor politics. Leveton engages with Albion Mill, the first site of coal-powered, steam-driven, industrial manufacture. It was in 1786—two years after the Scottish engineer James Watt patented his sun-and-planet gear steam engine—that his Boulton & Watt firm opened the facility in London. While the purpose of Albion Mill to grind corn into flour was largely unremarkable, the transformation in the velocities, scales, and political economy of production the Mill augured was staggering. Boulton & Watt firm documents show that £3,000 were budgeted for coal per year at Albion Mill, compared with just £348 for the workers charged with running the machines. As Leveton argues, with the financialisation of the fossil fuel, geological time—over which coal is naturally produced across earth-bound processes of decomposition, compression, and oxidation—became entangled with work-time—as the productive capacity of coal displaced the work of artisanal manufacture. Ultimately, a politics of rupture emerged when artisan millers whose labor conditions were threatened by the facilities burned Albion Mill to the ground, refusing the inhuman force of coal, the docile subjectivity of the steam engine machine, and

asserting the radical subjectivity of the worker. Their direct action—Leveton concludes—comprised an initial means of resistance to the forces of climate change.

The Distortion of Geologic Time by the Nineteenth Century Media
Linthicum, Kent (Oklahoma State University; kent.linthicum@okstate.edu)

The explosion of the globalized circuitry of print in the nineteenth century represented another social capacity through which the stability of geologies became interrogated. In his paper "The Distortion of Geologic Time by the Nineteenth Century Media," Kent Linthicum (Arizona State University) argues that this illusion was destabilized in the nineteenth century through the global print media apparatus. The earth's mode of being is nonlocal and distributed in space and time. Tectonic ruptures seemingly make the earth local and focused by providing a perceptible moment of change. As Linthicum demonstrates, media reinforced this misinterpretation during one of the largest volcanic eruptions in modern history. Reporting on these eruptions and earthquakes compressed geologic time suggesting that all tectonic activity was the precursor to new molten fissures. After the 8.0 magnitude 1887 Sonora earthquake on May 3rd, multiple newspapers across the continental US—including The Los Angeles Times and The New York Times on May 5th—and abroad—including The Manchester Guardian on May 6th—reported that a volcano had emerged near Tucson. The earthquake was not a catalyst for a new volcano in Arizona but the idea that one could spring up anywhere had permeated culture. The reports show western culture attempting to reconcile itself with the instability of the earth, yet in the process reducing geologic time back down to human time. As Linthicum concludes, this moment of volcanic anxiety illuminates the continued challenge posed by geologic time to human cultures, and shows that grappling with this requires balancing technology, cognition, and knowledge.

1B "In the Presence of Absence: Space, Time, and Body in Modern and Contemporary Art" *MU228 Cochise*   **Chair: Roja Najafi**

We consider absence as the lack of presence in a specific time and space. Absence inhabits a rare space where opposites bleed and blend into each other. This panel explores the qualities of "absence" and its pictorial and archival consequences in the works of Jean Dubuffet, Ed Ruscha, and contemporary artists: Janet Cardiff, George Bures Miller and Sara Madandar. Absence is an active element in: the multi-dimensional visual space offered by cubism and re-purposed by Dubuffet, in photographic spaces and Ruscha's books, in temporality of videos by Cardiff and Miller, and in Sara Madandar's work and practice. This panel relocates the connections between time, space, and body in regards to Absence in four slices of the twentieth and the twenty-first century visual practice.

Cubism Revisited: Jean Dubuffet's Works on Paper
Najafi, Roja (Oklahoma City Museum of Art; rojanmn@gmail.com)

Although he repeatedly insisted to break away from the preeminent styles of European art tradition, Jean Dubuffet's drawings and prints show an affinity to the multilayered notion of cubism. In his paintings and sculptures Dubuffet's transformation of bodies, faces, objects, and landscapes happens through the heavy use of physical substance. In the absence of elevated material in his works on paper, Dubuffet turned to compositional fragmentation and multiple

perspectives –introduced by Cezanne and developed by Cubism in the early 20th century. The result of this return to cubism is a pictorial space in which a story is unfolding. This paper investigates the link between the absence of materiality and presence of cubistic elements in Dubuffet's works on paper in regard to movement, narration, and space.

Vernacular Photography: Ed Ruscha on Display
Bradley, Taylor (The University of Texas at Austin; taylor.bradley@utexas.edu)

This paper explores Ed Ruscha's photography as a formal and visual language, in contrast to the critical reception of his photographs as amateurish snapshots or ironic documents of Los Angeles that dismissed his work as aesthetically or formally important. Writers such as Barbara Rose, Lawrence Alloway, and John Szarkowski saw Ruscha's books, primarily, as conceptual photographs that rejected the modernist tenets, which valued visual and physical aspects of a work. In their view, photography conveniently allowed contemporary artists like Ruscha to avoid issues of form and composition altogether and privileged idea-based aspects of the work. The persistent conflation of snapshots, amateur photographers, and documentary photography indicates an impoverished state of formal criticism as it relates specifically to the photographic medium. Considering the parallels these writers have drawn between Ruscha's books and snapshot photography, I argue that each photographic process generates a specific vernacular shared by its practitioners as well as a visual form of information and communication.

Virtually Nowhere: Temporality in the Video Walks of Janet Cardiff and George Bures Miller
Warak, Melissa (University of Texas at El Paso; mcwarak@utep.edu)

In 2012, Canadian artists Janet Cardiff and George Bures Miller presented two sound art works for Documenta in Kassel, Germany. One, called Forest (for a thousand years…), was a twenty-eight minute sound installation broadcast over a series of thirty speakers set up in the forest outside of Kassel. The second work, the Alter Bahnhof Video Walk, is a "video tour" of the old train station in Kassel; viewers would follow along with this twenty-six minute walk – narrated by Cardiff – via an iPod with headphones. This paper investigates the temporal trajectories of the video walks, which Cardiff and Miller have created since the early 1990s and which have brought them to locales including São Paulo, the Museum of Modern Art in New York, sites in Scandinavia, and the Villa Medici in Rome. The video walks engage notions of memory, history, and site; they are site-specific and are initially engaged on site, but may be experienced later online as well. In other words, a viewer today may make a virtual visit to the Alter Bahnhof of 2012 through the video walk, which references the Alter Bahnhof in 1945 and at other points in history, from the comfort of home. The reality of the video walk becomes unstable with time. This paper argues that the temporality of the video walk medium places the viewer-participant in three places: here, there, and an imaginary nowhere.

In the Absence of Bodies
Madandar, Sara (University of Texas at Austin; smadandar@gmail.com)

This talk will explore the juxtaposition of absence and presence in my new series: My Body is My Home. The role of absence and prances in my work runs parallel to a new take on the argument of Nude vs. Naked (the old pristine purity of the nude pushed aside by raw and dangerous images of the body). Yet in my work the body itself is often missing. This presentation further discusses the reception of my work as an Iranian artist by non-Iranian audience and the battel between the exotic surface of "otherness" and the base material reality of the work itself.

1C "Speculative Design" *MU240 Navajo*   **Chair: Ayhan Aytes**

Towards a Theory of Non-Human Design
King, Kylie (kking02@risd.edu)

Design occupies a special place within the discourses of applied ethology and human-animal relations. This theoretical trajectory offers a perspective which attempts to account for the animal on its own terms while also understanding the limits of a post-human perspective. Design in this context is tasked to decode and make legible the interfaces through which human, animal and technological objects interact. The problem arises when the division between the human and the biosphere are upheld through mediations of design, architectures, technology, agriculture, and a wide range of interfaces which materially encode value onto non-human subjects. Design practices remain implicated in larger political-economic contexts of animal capital circulation, agriculture, entertainment, and sanctuaries where animals are neither fully autonomous subjects nor property. In my presentation, I argue that critical design is the locus of human-animal interaction and a crucial site of disentangling terms of profit, infrastructure, value systems, and logistics. Building upon Giorgio Agamben's concept of *homo sacer*, as the point of contact between the animal as a philosophical consideration, and as a particular (not universal) lived temporality, I attempt to answer this question through a presentation of my work exploring the animal as a site of bare life in the face of climate shifts and adaptive reuse of industrial agricultures. I argue for a post-human centric future and modes of design that attempt to create mutually beneficial ecologies in the fold between interior architectures of capital, and the disastrous mega-architectures of the Anthropocene.

Plotting Anthropoid Particularity: The Structural Incorporation of Mechanics in Shanxing Wang's "Mad Science in Imperial City
Razvi, Saba (University of Houston-Victoria; razvis@uhv.edu)

Shanxing Wang's book of poetry "Mad Science in Imperial City" (2004) discusses the Tiananmen Square Massacre by way of nanotechnology & particle physics. Although spatial orientation may come immediately to mind, the idea of time is also of central importance to the conceit & experience of the poems. Wang's book highlights the manner in which an experience can live inside & outside of time, within structures that guide our movements, contain us, or haunt us. The event exists in the past, the future, & the present, in this collection, as do those affected by it, by its heritage across the world, across language. This paper focuses on the pattern & structure utilized by Wang to navigate the concept of the point, the line, & the dimension, as well as their corresponding psychological states in the experience of the speaker, as the text navigates memory, trauma, & the divide between objective & subjective engagement with life.

The structure of the book incorporates the fundamentals of mechanics, the changing nature of the graphic line, & the consequences of traumatic memory on an experience of temporality; it does so by toying with poetic theory's notion of radical artifice, the structural movement of the "line" as an implicit central conceit in three sections (with a fourth section investigating how to commit to a construction of that conceit), & a puzzle-conscious evocation of scientific material that draws attention to the ways in which the reader constructs parameters only to transcend them, ultimately.

Istanbul 2040: Speculative Design, Apocalypse Theology and neo-Ottoman Steampunk
Aytes, Ayhan (USF; ayhana@gmail.com)

Speculative Design offers a critical bridge between theory and practice towards our post human imaginaries when activated around a critical dystopian narrative. This paper will look at the ways speculative design can be used to engage with questions on alternative pasts and futures and design fictions in relation to neo-Ottoman steampunk genre. Neo-Ottoman steam punk emerged in the second half of the 90s almost in synchrony with the neo-Ottomanist foreign policies of the Turkish government. Among other cultural registers, nostalgia around a particular type of imagined Ottoman past was most significantly expressed in various literary works of Ihsan Oktay Anar. In his Kitab-ul Hiyel, Anar told unfortunate adventures of an Ottoman engineer through a series of fictional design failures of irrigation machines, clocks and various war machines. Similar nostalgic and futuristic literary and visual imaginaries have become increasingly popular in the last 20 years that could collectively be named as 'neo-Ottoman steampunk.' Speculative design is an essential part of these works whose scope of imagination is projected towards middle eastern pasts as well as futures. I will talk about these peculiar neo-ottoman steampunk designs through a conversation between folk media archaeology, critical dystopia and apocalypse theology.

1D "Bifurcating Temporalities and Forking Narratives" *MU242A Lapaz West* **Chair: Anne Brubaker**

Mary Shelley's Displaced Reanimates: Exploring the Disruptive Bodies and Minds of the Undead
Zarka, Emily (Arizona State University; ezarka@asu.edu)

Possession of a corporeal body instantly grounds consciousness to the present, uniting sensory experience with outward stimuli. The undead characters in Mary Shelley's short works "Valerius: the Reanimated Roman" (1819) and "Roger Dodsworth: the Reanimated Englishman" (1863) demonstrate how the moment of one's existence determines sense of self. Although they retain control over their unblemished corpses, their existence between states of being as human/nonhuman/monster makes them outsiders. In "Valerius," the revived Ancient Roman pursues relics of the place/person he remembers, evaluating their decay or permanence as the basis for his modern experience. Ultimately proving to be a hopeless pursuit, this exploratory education fails to surpass his memories, making his own presence meaningless. Alternatively, "Roger Dodsworth" devotes his second "life" to learning all he can about the modern period. For the reanimated Englishman, learning is not a revelatory process, but a desperate one, as he struggles to survive in his new world. Ultimately both narratives locate the discomfort between

the living and the undead in the temporal displacement of the body and mind of the resurrected corpse. The undead creatures of Shelley's texts must learn how to function in cultures that fetishize their antiquity, using their human bodies to facilitate the expansion of their intellects. My argument insists that the possession of a human body, living or undead, unites all in a corporeal commonality that time cannot erase.

Time Poverty in Andrew Niccol's In Time
Brubaker, Anne (Wellesley College; abrubake@wellesley.edu)

The idea of time as a literal currency – as a precious commodity bought, sold, or traded to add or subtract hours to your life – appears in a number of American science fiction stories, such Harlan Ellison's short story, "Repent, Harlequin!' Said the Ticktockman," (1965), Lee Falk's "Time is Money" (1975), the short film "The Price of Life" (1987), and more recently, Andrew Niccol's film In Time (2011). What distinguishes Niccol's film from these earlier works is his attention to class-based inequities of time. The film features two time-zones, one in which an elite class can afford centuries of time and another in which people often have less than 24-hours on "their clock" at a given time. I show how the film illustrates the concept of time poverty, described by economists and sociologists as a shortage of leisure time or time devoted to the care of oneself, family, or community. For low-income individuals, the ability to buy or borrow time, to have a "time out" from daily obligations, or to simply gain control of time is much harder. Though the film captures the effects of time shortages, it overlooks the realities of time expenditure - for example, the time spent traveling on public transport on the often long commute between home and work or moving through bureaucratic channels as a welfare or Medicaid recipient. This paper will also explore the ways the film falls short of capturing the reverberating and compounding effects of time poverty on the working poor.

Saving the Life of a Villain: Evaluating the Near-Death of Rogue Riderhood in Our Mutual Friend
Merryman, Walter (University of California-Riverside; wmerr001@ucr.edu)

A particular near death experience holds a significant place for Deleuze, in "Immanence: A Life, and Gregg Lambert's recent book Philosophy After Friendship. Rogue Riderhood is an antagonist in Charles Dickens' Our Mutual Friend, but his life is also declared as worth saving. His near death experience provokes concern of people who otherwise wish he would disappear. Deleuze thinks of this as a life reduced to its barest, or most essential element; Lambert asks if this death may be a death-in-common, the kind of death which creates an ethical responsibility across social and political divides. The possibility of such a life and death is essential in our moment when violence and environmental change put our borders and juridical institutions into question. This paper will ask whether Riderhood, an English white male, can really hold such meaning. The example of Riderhood's life is valuable because it is saved outside of a juridical context; he is not saved in a hospital, nor does the state take responsibility for his life. Does Deleuze's argument that Riderhood's death reveals something like a life-in-itself legitimize Lambert's idea that Riderhood may provide such an ethical ideal? Although such an ideal is worthwhile, I will argue that the ethical value of Riderhood's near death experience is more a function of literature than a philosophical thought experiment. Even if we cannot say what makes a particular life so valuable, Our Mutual Friend does create an understanding that it is so.

1E "The Power of Digital Talk" *MU 242B Lapaz East*   Chair: Julie Funk

The Time of Megatexts: Dark Accumulation and Mark Z. Danielewski's *The Familiar*
Fest, Bradley J. (Hartwick College; bradfest@gmail.com)

With the disastrous effects of rising atmospheric carbon becoming increasingly observable and the relentless pace of neoliberal capital pursuing ever-increasing profit, the twenty-first century appears to be a time of *dark accumulation*. Increasingly, the risks facing the overdeveloped world stem not from absence but from overwhelming presence: everywhere there is a problem of *too much*. And it appears that such horrifying accumulation goes for contemporary experiences of time as well. An author known, perhaps most famously, for exploring spatial and textual accumulation, Mark Z. Danielewski's new project, *The Familiar* (2015–), a twenty-seven volume serial novel in progress, turns his attention to the multiplying temporalities of the Anthropocene. From the deep time of its cosmic frame tale and the shifting temporalities of globalization experienced by its cosmopolitan characters, to its confrontation with planetarity and its bi-annual, serialized release schedule, *The Familiar* asks its readers to confront what it means to live in and at too many times. In this paper I will explore *The Familiar* as an example of what I call a *megatext*—an unreadably large yet concrete aesthetic and rhetorical transmedia object, produced and conceived as a singular work, and which depends upon digital technology and collaborative authorship for its production—and argue that Danielewski's massive novel emerges from and responds to a world in which time is no longer out of joint, but overwhelmingly and catastrophically multiple.

A Tech-Lover's Discourse: Roland Barthes, Longing, Loss, and Separation Anxiety in Non-Use Discourse
Funk, Julie (University of Waterloo, Critical Media Lab; julie.funk@uwaterloo.ca)

The era of ubiquitous computing is also an era of digital paranoia. Rhetorical tropes concerning addiction, privacy, and control are central to discourse around Human-Computer Interaction (HCI), both in the public eye, and throughout critical scholarship. Prominent digital media scholars, Sherry Turkle (Alone Together: Why We Expect More from Technology and Less from Each Other) and danah boyd (It's Complicated: The Social Life of Networked Teens) both explore the role of digital technology in terms of anxiety and addiction. One anxiety regarding the non-use of digital media is often portrayed as separation anxiety from both the material device itself, and the vast, virtual network to which the device connects its user (Przybylski et al. 2013; Trub and Barbot 2016; Hartanto and Yang 2016). This conference paper reads the linguistic network of terms surrounding digital addiction and separation anxiety, such as desire, drive, death etc., as the language of "high-tech lust" ("High-Tech Lust," Michael 2010). Such a discursive network is characterized by romantic feelings of absence, longing for, and loss of the digital device. This network is explored through the language and theory of Roland Barthes' A Lover's Discourse: Fragments; Barthes' work forms vignettes of lovers' language. A comparative reading of this literature with the language of digital addiction and separation establishes a discourse of digital lust. The aim of this research is to analyze the ontologies created by anxious users and non-users in which their behavior adopts notions of intimacy and intersubjectivity with digital devices.

World Wide Walden: Toward a Thoreauvian Ethics of Screen Time
Tinnell, John (University of Colorado; john.tinnell@ucdenver.edu)

Media researcher Sherry Turkle's 2015 book, Reclaiming Conversation, has catapulted Walden into the living center of critical discourse on smartphones. For Turkle and the "digital detox" advocates she endorses, Thoreau's deliberate retreat to the woods charts a course that we may follow in order to rediscover the singular pleasures of life without screens. Turkle warns that "face-to-face talk" is under siege in classrooms, boardrooms, and dining rooms. The traditional back-and-forth of a hardy conversation now features an additional thumb thumping fort-da. Interlocutors divide attention between their nearby companions and insistent datastreams. Social media cacophonies can drown out one's inner monologue and diminish nearby voices; ominous online exchanges interfere with modes of conversation that Turkle wishes to redeem. Ultimately, if we are to reclaim conversation, then we need to reflect further about what conversation is and what counts as conversation. To locate the power of talk firmly on the side of offline speech (over and against online text) not only limits our prospects for conversing meaningfully in the digital age. I venture that Turkle's phonocentric position also shortchanges the generative insights we might glean from Thoreau's philosophy of communication, which includes conversations that elude Turkle's framework. Whereas Turkle enlists Thoreau in the fight to curtail screen time, this presentation advances an alternative reading of Walden that cultivates an ethics for assessing the potential communicative value associated with mobile screens and the transformations they are now undergoing through the rise of ubiquitous computing, augmented reality, and the Internet of things.

1F "Playing Times" *MU 246 Coconino*   **Chair: Chaz Evans**

Twisting Time: The Ludonarrative of Nonlinearity in Braid
Bryan, Jeffrey (UC Irvine; j.s.bryan1@gmail.com)

Time is an ever present actor in narrative. We distinguish time in storytelling according to its linearity. Linear storytelling is presented in order, while nonlinear storytelling is presented in some way outside a linear progression. However, in most mediums, there is a limit to nonlinear storytelling: for any one piece, any book or film or song, while the narrative provided may be non-linear, it is always provided in the same sequence. The sequence of events remains the same every time you read the same book or watch the same film. Some videogames, however, are capable of presenting their stories in new sequences every time they're explored. In this paper, I will explore nonlinearity in videogame storytelling through the analysis of time in Jonathan Blow's 2008 indie game Braid, evaluating a particular sequence in which the same events can be explored backward or forward in time, changing its meaning depending upon its sequence. In so doing, I will incorporate Jesper Juul's theory of game time toward ludonarratology and the player's experience of narrative engagement. Braid's unique time manipulation mechanic allows players to take full control over the sequence of events, not only establishing the sequence, but fine tuning it toward a more perfected progression, challenging notions of authorship and essentialism, encouraging a more ephemeral interpretation of videogame storytelling.

Exponential Backlogs: Videogames and the Crisis of Time Compression
Evans, Chaz (Northwestern University; chazevans@northwestern.edu)

Websites such as SteamLeft and How Long to Beat Steam? take data from the users of videogame platform Steam and tell them precisely how long it would take to play every videogame for which they have a license. For many users the total hours is staggering; a standard feature of How Long to Beat Steam? is an estimate of whether one will be able to play all of your videogames within a lifetime. These websites illustrate the tensions between gaming and time, for both producers and audiences. Game studios offer extensive "replay" value and boast hundreds of hours of play in a single title. Titles are also released on increasingly shorter production cycles and longer bouts of "crunch" time for laborers. Audiences feel pressure to complete more games in order to keep up with trends yet are curtailed by limits of time and financial resources increased by the responsibilities of aging game demographics. This paper analyzes the conflict between increased production and audience time anxiety, showing how anxieties about time—in game production and play—are undergirded by class and gender privilege. Additionally, this crisis of time has resulted in another context of game production being scaled up considerably: that of brief videogames made by small studios or solo-authors. The paper concludes by proposing a culturally-defined category of "short game" (similar to that of film) as a useful creative mode for a discipline struggling with a critical time shortage.

Ephemeral Instances and the Value of Invested Time: The Temporal Tensions for Comic Vine Wiki-writers and Forums Users
Wildrick, Chris (Syracuse University; cwildric@syr.edu)

I will discuss the varying experiences of time for users of the website Comic Vine, in particular its wiki and forums—temporal experiences that are instantaneous and durational, immutable and evolving, memorable and evanescent. Users can contribute comic-related entries to Comic Vine's wiki, the goal being an eternal, ever-increasing repository of knowledge and research. Yet a wiki is innately editable with the press of a button. It is both perpetual and mutable. Eventually, every article will transform like Theseus's ship, incrementally over deep time. On Comic Vine's forums, on the other hand, participants have conversations about whatever they're thinking at the moment. These conversations, which I site within the realm of community-building dialog-based art, such as that by Tom Marioni and Rirkrit Tiravanija, are innately of the moment—flashes of communication among peers, a million instants of nothing that add up to create lasting community. Ironically, the text of these public moments of conversation are more permanent than the wiki: they are uneditable, and there for anyone to read forever. However, as Gollum says, time "all things devours." Comic Vine was founded by a fan. It became increasingly successful and was bought by CBS. Last month, the founder was apparently fired. Fans are concerned that the wiki, on which they invested untold hours, may not be as eternal as they thought, should the site turn unprofitable. How do we value our time? Is it worth investing time in a project if its time horizon is out of our control?

1G "Genetic Measures of Literacy, Mutability, and Biopolical Life" *MU238 Apache*
Chair: Lesley Larkin

Reading in the Postgenomic Age
Larkin, Lesley (Northern Michigan University; llarkin@nmu.edu)

In recent decades, humanists have been called upon to serve significant scientific and medical goals. Philosophers ensure that research projects are ethically sound, and practitioners of narrative medicine improve patient care using the techniques of literary criticism. While the value humanists add to science and medicine is widely recognized, less attention is paid to how such exchanges transform the humanities themselves. This paper is part of a developing literary studies monograph, Reading in the Postgenomic Age, that focuses on how interdisciplinary transactions among the humanities, science, and medicine prompt critical self-reflection within the humanities. I argue that contemporary U.S. authors engage genomic science not only to comment on questions of scientific and medical ethics but also to address parallel questions of narrative ethics. Many literary works that take the life sciences as their subject are equally concerned with the politics of reading. Their interventions are not only in the field of representation (genomic discourse) but also in the field of reception (the participation of readers in the circulation of genomic discourse). This paper draws from literary and science studies scholars (such as Rita Charon, G. Thomas Couser, Lily Kay, Evelyn Fox Keller, Hannah Landecker, Margaret Lock, and Sidonie Smith) and from authors of literary fiction, non-fiction, and drama (such as Rebecca Skloot, Richard Powers, Gerald Vizenor, Alina Troyano, and Ruth Ozeki) in order to articulate a reader ethics that, patterned on epigenetics (the study of DNA in its many, layered environments), emphasizes context and indeterminacy at the literary encounter.

The "Unity" of the Genetic "Unit" of Selection: Mutability, Iterability, and Evolutionary Change
Kimball, A. Samuel (University of North Florida; skimball@unf.edu)

The primary purpose of this presentation is to explain why the gene or gene fragment, selfish or otherwise, cannot be the fundamental "unit" of selection. The reason why involves understanding (i) how the genetic unit loses its presumptive unity not merely when it undergoes mutation but by virtue of being mutable whether or not it mutates; and (ii) how evolution selects not for a gene that can replicate but for a gene that can transmit its mutability across its instances of replication. In this regard the mutability of the gene obeys the Derridean logic of iterability—iterability as distinct from and prior to a given empirical instance of iteration. Thus, iterability and mutability do not name evolutionary "units"; rather, they name the genetic unit's susceptibility to mutation without which the genetic unit cannot differentiate and give rise to new genes over time. In other words, the Derridean logic of iterability announces the differentiating iterability that is at work in (that operates behind, before, or within) the gene's iterating differentiation, which for its part constitutes the empirical history of evolution, including not only the speciation that occurs after life has evolved but also the very advent of life and of life's inevitable disappearance, a disappearance to come when life will have been out of time.

The Rhetoric of Extinction in Disability Studies
Bruyere, Vincent (Emory University; vbruyer@emory.edu)

In this paper I propose to examine the reference to extinction within the disability studies community and more broadly in the context of disability activism. The concept of species extinction originating in the field of paleontology, has recently gained a new form of cultural currency in the context of environmental activism but also in the domains of critical theory and visual culture, fuelling both thought experiments on the future of life on the planet and aesthetic

ventures into the limits of representation. More recently, the concept of extinction was used by disability advocates to raise awareness and express their concerns about the eugenic dimension of genetic prenatal tests in postindustrial countries. For them, Down syndrome is in effect an endangered trait that is being selected out through medical intervention. Rather than to turn to bioethics and debates surrounding the notion of genetic diversity to make sense of the mobilization of disability advocacy group around the notion of extinction, I take cues from the recent work of Ursula Heise on the cultural dimension of politics of conservation and the representation of species extinction. The focus will be on two documents: a late medieval Flemish painting conserved at the New York Metropolitan Museum of Art, The Adoration of the Christ Child, in which psychiatrists Andrew S. Levitas and Cheryl S. Reid identified several characters presenting with Down syndrome, and the ruling by a French court against the broadcasting of a two-minute video titled "Dear Future Mom" commissioned by the Global Down Syndrome Foundation.

1H "Transmedia Storytelling and Using Frankenstein for Science Education" *MU229*
Santa Cruz   Chair: Ed Finn

Transmedia Storytelling: Predicting the Future with Technology
Davis, Casey (Arizona State University; Casey.Davis.1@asu.edu)

This talk examines the unique perspective of the emerging, transdisciplinary practice of transmedia storytelling. This process is adaptable to a variety of applications and diverse contexts. Transmedia storytelling moves the participants from being passive, to sharing the author's actions in telling the story. It is a powerful and robust means of making the best use of both time and capital, while cultivating innovation. Transmedia storytelling draws upon seeming disparate disciplines such as cognitive psychology, literature, coding, and design. This merging of the art, sciences, and humanities using the vehicle of technology is gaining more interest, practitioners, and researchers each day.

Using Mary Shelley's Frankenstein for informal science education
Eschrich, Joey (Arizona State University; jpe@asu.edu)
Finn, Ed (Arizona State University; edfinn@asu.edu)
Nagy, Peter (Arizona State University, Center for Science and the Imagination; peter.nagy@asu.edu)
Wylie, Ruth (Arizona State University; ruth.wylie@asu.edu)

At the verge of its 200th anniversary, Mary Shelley's *Frankenstein; or, The Modern Prometheus* is still one of the best-known stories about the thrill and potential perils of science. Because of its ubiquity and enduring power, Shelley's epic tale serves as lens for understanding people's attitudes and beliefs about scientific and technological artifacts, and the process of scientific reasoning and discovery. Capitalizing on the widespread appeal of the *Frankenstein* story, we present a new informal education project, the Frankenstein Bicentennial Project 2016-2018 (NSF Award 1516684), blending various science, engineering and ethical concepts and themes to enable people to approach and reflect on these issues in a unique way. Our project uses transmedia storytelling, combining a panoply of interconnected online and offline activities unfolding in a near-future fictional diegesis to facilitate a deeper and more meaningful

engagement with STEM themes. We have two main objectives: First, we aim to help people gain a more nuanced understanding of the motivations and ethical principles of scientists, and the potential benefits and pitfalls of innovations. Second, we want to support people in developing a stronger sense of science self-efficacy and a deeper interest in science-in-society issues. In our session, we will present work-in-progress results from our project, and show the different ways our transmedia experience may inspire people to imagine STEM issues more critically.

1I "Future Cosmologies: Astrobiological, Climatological, and Alien Time" *MU227 Pinal*
                    Chair: Robert Markley

Astrobiology's Cosmopolitics and the Search for an Origin Myth for the Anthropocene
Malazita, James (Rensselaer Polytechnic Institute; malazj@rpi.edu)

This talk analyses astrobiology as a cosmopolitical project—the ways in which astrobiological "sense-making" practices do philosophical, political, cultural, ontological, and ethical work as much as they do scientific work. This paper attempts a spatio-temporal approach to understanding astrobiology's cosmopolitics: that of contextualizing the empirical, metaphysical, and ethical practices of astrobiology's present within the contemporary Modern, Western milieu. This paper will deploy an ecocritical approach, a style of humanistic interpretation that reads texts through an ecological lens, and argue that the Western cultural metanarrative of the Anthropocene, in concert with the current ecological crisis, acts as a core metaphysical and normative frame of astrobiology. This paper will argue that the astrobiological cosmopolitical project is not just one of seeking alien life and gathering data about the possible origins of microbial life on earth, but rather that astrobiology is engaged in a far deeper endeavor, the construction of a new set of myths that help the Moderns make sense of their place, role, and future in a future replete with an ever-unfolding climate crisis. Through an analysis of scientific discourse and archival material, this talk argues that astrobiology is engaged in the crafting of a new "origin myth" that makes sense of humanity's place in the universe during our transition from the Holocene to the Anthropocene.

The Invention of Climatological Time
Markley, Robert (University of Illinois Urbana-Champaign; rmarkley49@gmail.com)

This paper argues that by the end of the eighteenth century, an ad hoc notion of "climatological time" began to emerge at the very moment that the "empty" time of mathematical simulation and geohistorical reconstruction began to assert its explanatory power by disembodying the natural world. In imagining a non-anthropogenic time that transcends both individual and historical experience, climatological time poses an ontological challenge to theocentric ideas of time in three (at times) overlapping scientific areas. In the 1790s the nebular hypothesis of planetary formation advanced by Pierre Simon de Laplace, the argument for species extinction by Georges Cuvier, and the "discovery" of geological time by James Hutton transformed conceptions of climate by decoupling history from human experience and memory. The nebular hypothesis anthropomorphized the life cycle of planets in terms of youth, maturity, old age, and heat-death, offering a model of climatic change as the consequence of irreversible, universal processes. Hutton's vision of geological time presented a cyclical history of erosion and upheaval that continually reshaped the earth. Cuvier's account of the extinction of fossilized species raised

profound questions about the limits of biblical history and the ways in which past environments differed from present conditions. The fascination with the skeletal remains of dinosaurs, giant sloths, and mastodons suggested that nature bred species in primeval ecologies no human ever had seen. In different, ways, all three redefinitions of time focused renewed attention on the mutability of climate beyond catastrophism.

The temporal complexities of SETI, or how to think about an archaeology of a future moment of rupture
Knouf, Nicholas (Wellesley College; nknouf@wellesley.edu)

The Search for Extraterrestrial Intelligence (SETI) aims to discover evidence of alien civilizations through the collection and analysis of vast amounts of radio and optical astronomy data. Philip Morrison, a key early figure in SETI, called the project an "archaeology of the future", a curious juxtaposition of temporalities that suggests a study of our future through the (hopeful) analysis of older alien signals. Yet this archaeology itself suggests a future messianic moment, in the sense of Walter Benjamin, for it creates a rupture between pre- and post-contact. All time in SETI is measured prior to this break, which all SETI researchers I have interviewed hope lies within their own lifetimes. This break could not be more stark, for in the post-contact world we would affirmative answer to the primary question that drives the researchers I have interviewed: are we alone? Nevertheless, it is entirely possible that we may easily miss discovering the answer to that question, since constraints on funding lead to constraints on the storage of data. SETI, in a certain sense, has no history, as most data are not stored for future analysis and only a very small subset of "candidate" signals are retained. Of course, what is a "candidate" signal can and has changed over time, and this pedestrian storage limitation creates a search for a needle in a haystack that is continuously destroyed and reconstituted very few microseconds. Through a close reading of the historical SETI literature, oral histories, technical analyses of SETI searches, and interviews and participant observation within a contemporary SETI research group, I discuss how all of these temporalities have been--and continue to be--constructed at the intersection of technology, concept, and desire for contact.

1J "Time and Narrative Experimentation Across Latin American Fiction" *MU226 Graham*
                Chair: Luis O. Arata

Time Remodelings: Interplay of Chronos and Kairos in Borges and Cortázar
Arata, Luis O. (Quinnipiac University; Luis.Arata@quinnipiac.edu)

In the essay "New Refutations of Time," Borges concluded that linear time and the sense of self are linked. To give up one causes to give up the other. To go beyond chronos destabilizes the sense of identity. As Borges put it, with regret, yet as challenge: "The world, unfortunately, is real; I, unfortunately, am Borges." This presentation explores remodelings of physical and psychological time that the two authors have fashioned, and how these models evoke an uncanny sense of time being out of time. Borges remodeled conceptions of kairos within historical time. Two of his stories, "The Secret Miracle" and "Borges and I," taken together, illustrate how time and self-identity interact. Cortázar took a structural approach to the sense of time in Hopscotch. He proposed two readings to his novel. One reading culminates with a traditional linear ending. The other offers a reordering of chapters that leads to a final, neverending, time loop. For Borges

and Cortázar, alternate realities coexist with prevailing ones in separate spaces that at times may communicate through continuities to be found. Borges relied on conceptual models to tease out such rare interactions. Cortázar, in Hopscotch, pursued them in the shape of narrative. Keywords: chronos, kairos, Borges, Cortázar, remodeling time, narrative.

On Linear Time, Relativity, and Other Fictions: Nonmodern Literature and the Latourian Turn
Lee, Derek (Pennsylvania State University; dpl151@psu.edu)

Bruno Latour famously contends that in order to achieve a greater understanding of ourselves and the world, we must adopt "nonmodern" modes of thought which reject the false distinction between modern and premodern epistemes. Despite his celebrated call to action, few works of literature ever deviate from modern notions of space-time, with Newtonian and Einsteinian models continuing to dominate narrative aesthetics. In recent years, however, a new spate of fictions have begun to challenge this chronotope, with circular, eternal, and multidirectional temporalities all offering unorthodox ways of perceiving time and space from beyond our standard, Eurocentric frameworks. I argue that such a Latourian turn represents a new and necessary stage in contemporary literature. Sesshu Foster's Atomik Aztex, which envisions an alternative reality in which the Aztec Empire has emerged as the world's dominant nation-state, serves as my case study here. The text's destabilization of Western phenomenology via Meso-American cyclical time not only speculates upon nonmodern being but also highlights its political stakes and potential. Drawing upon Quentin Meillassoux's extro-science fiction and Paul Feyerabend's anarchic epistemology, I use Foster's novel to map out the principle tenets of nonmodern fiction. Several questions guide this talk: What are the epistemological and narratological concerns of nonmodern texts? How do such works affect science studies and literary criticism more broadly? Most importantly, how does nonmodern representation help us to better navigate our present age?

Time and Narrative Structure in the Novels of Alfredo Vea
McConnell, Craig (California State University Fullerton; cmcconnell@fullerton.edu)

Alfredo Vea, a San Francisco public defender, produced four novels from 1994 to 2016. Critically acclaimed for their appreciation of the richness of mestizo culture and for their challenges to white privilege in America, they are also a lens into a wide variety of spiritual traditions. His earlier works, *La Maravilla* (1994) and *The Silver Cloud Cafe* (1996), contain incidental meditations on space and time that establish consideration of the nature of time as a leitmotif in his works. In *Gods Go Begging* (2000) and *The Mexican Flyboy* (2016), space and time serve a larger purpose, influencing the narrative structures of these later novels. In this talk, I will examine the growing attention to time in Vea's work, and argue that time serves a very different purpose in the narratives of the later novels. In *Gods Go Begging*, the main character spends most of the novel helplessly caught in a growing bubble of time, whereas the main character in *The Mexican Flyboy* develops the ability to manipulate time to serve a larger purpose.

1K "Sensing the World and the World Sensing Back" *MU224 Gila*

The second isn't quite long enough: leap seconds and durational performance
Morawetz, Sara (Sydney College of the Arts, University of Sydney; sara.morawetz@gmail.com)

The 'leap-second' is the quantum of time irregularly added to our global clock — keeping our lives in-sync with the stars. These small corrections overcome the inherent contradictions between the specificity and precision of atomic time-keeping and the irregularity of the Earth's own physical movement — a compensation for our intransigent relationship with the sun. In the broader context of human experience, it is tempting to relegate leap seconds to the inconsequent — assuming that such infinitesimal adjustments carry little resonance. However, the cumulative effect of this mechanism is nothing less than that which holds the sun overhead at midday, and without it, our time becomes unfastened to the solar cycles in which it's steeped. This presentation examines complex questions of variability in time through my work *61/60* , a life-long performance series that documents the occurrence of leap-seconds with a one-second action coincident with their introduction. These performances, subject to the rulings of the International Earth Rotation and Reference Systems Service — the agency that regulates the use of leap-seconds — are as much a conscious act of waiting as a physical action, and are staged only when the Earth tarries sufficiently in its orbit. The first iteration *(026)* was staged in Times Square, NYC coincident with the introduction of the 26th leap-second on June 30, 2015, at precisely 19:59:60 EDT (23:59:60 UTC). The second, *(027)*, was staged at Lick Observatory, California, for 27th leap-second on December 31, 2016 at precisely 15:59:60 PST (23:59:60 UTC).

Machine Weather: Atmospheric Media, Storm Chasing, and The Counterperformativity of the Earth
Zehner, Brett (Brown University; brett_zehner@brown.edu)

The first successful tornado warning was issued from a military base in Oklahoma in 1948. This was a significant breakthrough for computational meteorology and the predictive capacity of the military. However, the danger of severe weather still exceeds and undermines attempts at predictive and temporal environmental governance. As a corrective, the storm chaser is enlisted to provide an embodied, performative witness to the unruly event of severe weather. In this paper, I argue that a materialist approach to language, namely, performativity, has been woefully under-theorized as a mediator in environmental politics. Too often theories of representation and visuality overdetermine the sensory and a-signifying relation of bodies and environments. As well, the temporality of environmental embodiment, of severe weather specifically, is masked by overdetermined visual representation. Michel Callon's notion of counterperformativity in scientific knowledge production is useful here in understanding the constructive nature of predictive sciences. For Callon, the world enacted through the speech act of prediction, in fact, produces effects that strike back in the form of matter not behaving as expected. So, following Barad and Callon, this paper seeks to probe the complexity of socio-technical environmental performance through the figure of the storm chaser. It is my claim that the chaser's attention to the various codes of representation, data, and the embodiment of the atmosphere act as techniques to manage the counterperformativity of severe weather. My aim is to formulate a theory of the performatic and materialist aesthetic dimensions of the atmospheric sciences while illuminating the power of geophysical forces in choreographing the social.

Thursday, November 9, 2017, Session 2: 4:00 PM – 5:30 PM

2A "Weighing the Anthropocene" ASLE 1 *MU236 Mohave* **Chair: Helena Feder**

This ASLE (Association for the Study of Literature and Environment) panel at SLSA consists of four papers that address the conference theme in terms of the Anthropocene and a respondent. What might be lost and/or what might be gained with this new measure of geological time, and what it might mean to weigh and measure -- to demarcate meaning or value -- in an age at once characterized by a new awareness of vertiginous scale and complex interconnection, and by the seeming collapse of agency itself into a singularity, an idea of "Man"?

To See a World in a Grain of Rice: Temporalities of a Flowering Grass and the Great Acceleration of the Anthropocene
Gan, Elaine (University of Southern California; eganuc@gmail.com)

The domestication of rice (Oryza sativa) over ten thousand years ago in Asia enabled settlement, trade, and early state formation. A highly adaptable flowering grass, countless varieties of this plant have evolved with the shifting encounters and movements of more-than-human ecologies over centuries. Rice is one of the most land-, water-, and labor-intensive crops today. Every grain of rice embodies the entangled histories and temporalities of species, environments, machines, and systems of measure. This paper considers two grains of rice to articulate the contemporaneous existence and ongoing constitutions of the Holocene and the Anthropocene. The first is miracle rice: high yield, fertilizer-dependent, quick growth varieties that triggered a postwar Green Revolution throughout Southeast Asia. The second is floating rice: long-stemmed khao na pi that grow over six months in synchrony with monsoon rains and floods, clay soils, and water buffaloes in Laos. Both grains exist today and simultaneously enact Holocene and Anthropocene ways of life—but perhaps not for long. The progeny of miracle rice fills most of our food stores and feeds half of the world's population, while the planting of floating rice dwindles in the shadows of Lao megadams. My paper describes biogeochemical assemblages that gather around each grain, but not to weigh an evil industrial grain against a good indigenous grain. I seek to open a line of speculative inquiry into how epochs are made and unmade through specific, situated, and contingent coordinations between multiple rhythms and intervals of time. I argue that worlds live or die through practices of more-than-human timing that exceed human systems of knowledge and domestication. To survive the challenges of anthropogenic change, creative and critical methods for studying such elusive temporalities are urgently needed.

The Climate Canon and the Arts of Futurity
Adamson, Joni (Arizona State University; Joni.Adamson@asu.edu)

Two decades ago it would have been difficult to identify even a handful of books that would fall under some of today's emerging definitions of "cli-fi." However, two things are changing this: 1) rising awareness of a geologic transition from the Holocene to a new age, being called the "Anthropocene," and 2) growing interest in an award-winning corpus of novels, dubbed cli-fi, that warns readers of the environmental nightmares accelerating in the Anthropocene, including Barbara Kingsolver's Flight Behavior, George Turner's The Sea and Summer, Nathaniel Rich's Odds Against and Paolo Bacigalupi's The Windup Girl. I will argue, however, that there is a long, even ancient relationship between story and nature that may make claims that cli-fi is

"new," a bit premature. Nature, after all, has been the subject of imaginative narratives around the globe, for thousands of years. These narratives include the Epic of Gilgamesh, the Hebrew Bible, the Mayan Popol Vuh, the Tao Te ching, and the Bhagavad Gita, and the Greek oral narrative, Pandora. Many discuss human relationship to weather directly. With these ancient and recent texts in mind, I will argue for a new attention to a "climate canon," to coin a phrase, rather than to only one genre of contemporary fiction. I'll explore how ancient texts, very much like cli-fi, muse on anthropocentric values and beliefs that result in unintended consequences. I will also explore how humanists are employing this mixed genre climate cannon AND mixed methodologies, including urban planning, geography, future casting, back casting and scenario building to pilot what is coming to be called, the "arts of futurity." As I will illustrate, this new constellation of practices, is already sparking imaginative thinking and doing about the many complex challenges of a rapidly changing climate.

Shaping Life and Sharing Life in Joan Slonczewski's Door Into Ocean: An Alternate History of Synthetic Biology
Wilbanks, Rebecca (Stanford University; rrwstanford@gmail.com)

Stewart Brand's Anthropocene aphorism – "we are as gods and we have to get good at it" – suggests that large-scale bioengineering of the natural world is necessary for humans to survive on a changing planet. Synthetic biology, a postgenomic discipline that aims to make biology easy to engineer, takes up this call. Synthetic biology developed in dialogue with science fiction, and adopts a conception of biohacking from cyberpunk texts such as Rudy Rucker's Ware Tetralogy (1982-2000) and Greg Bear's Blood Music. This paper asks how the field might have developed differently had its founders instead read Joan Slonczewski's Door Into Ocean (1986): a text that dates to the same period as Rucker and Bear's novels and offers a conceptualization of life and its "shaping" by humans that resonate with alternative approaches to synthetic biology framed less in terms of code than of culturing. I put Slonczewski's imagined world – a planetary oceanic ecology – in dialogue with feminist, ecocritical, and new materialist interventions that explore the ways in which, as Céline Granjou and Juan Francisco Salazar write in a recent Environmental Humanities entry on the Future, "humans do not build 'their' futures alone" (241). Reading both alternative and dominant imaginaries of synthetic biology against the theoretical interventions of new materialisms, I analyze the way in which geographic and temporal scales shape narratives about the role of human agency in the evolution of life. I show that both imaginaries are deeply connected to a historical tradition of speculation about the emergence of a global superorganism, but they theorize these forms of interconnectedness differently, and offer different weightings of the relative values of life-as-it-could-be versus life-as-it-is-now.

Respondent: Helena Feder (East Carolina University; federh@ecu.edu)

2B "Simondon's Out-of-Step Ontogenesis I" *MU228 Cochise*   **Chair: Maryann Murtagh**

Gilbert Simondon (1924 - 1989) is a French philosopher of individuation and thinker of technical objects and their internal modes of existence. In a paper translated into English in 2009 entitled, "The Position of the Problem of Ontogenesis," Simondon describes the process of individuation in relation to the preindividual, individual, and transindividation. Interestingly, he argues that an

individual's reality only occupies a certain phase of its whole being (i.e., it does not include its preindividual potentialities or transindividual collective formations). For Simondon, individuation does not exhaust all the potentials but rather forms one part of the ontogenetic process in the development of something larger. In other words, individuation is the process of being as the process itself unfolds. The curious thing about this process is the way Simondon describes the ontogenesis of the individual as having the capacity to "fall out of step" with itself. He describes the preindividual being as the being in which there are no steps at all. Individuation is never a step or stage or synthesis or return to unity but the being passing out of step with itself through the potential incompatibilities of its preindividual center. This is an ontogenetic perspective in which time is the expression of the dimensionality of the being as it is becoming individualized. The purpose of this panel is to think through Simondon's phrase "out of step" in relation to his theory of the process of individuation and to consider theories of time that might emerge from it.

Extensions of Nature: Sonic Problematics of Simondon's Preindividual Reality
Rambo, David (Duke University; david.rambo@duke.edu)

This paper engages with Gilbert Simondon's major doctoral thesis, L'individuation, by way of his idea that technics extend natural organizations of causality into human culture. On its face, this characterization inverts the McLuhan theory that technical media are extensions of man. Much more radically than that, I contend that the technical extension of nature can be read in connection with Simondon's metaphysical account of being's preindividual reality as a "nature associated" with every individuated being. In this capacity, the preindividual bears in correspondence to an individuation what has yet to be individuated; it is a fully actual potential that prolongs individuation by resisting individuation's completion. To illustrate my reading, I swap out Simondon's example of molding a clay brick for the modular daisy chains of electrical guitar effects pedals that modulate sonic signals. These latter technics exemplify as much as they resist Simondon's reduction of the technical object to scientifically formulated physico-chemical laws. Effects pedals stage a technical reality in which subcultural aesthetics as well as modifications to microscale physical phenomena participate. Simondon can thus be read against his own conservative attribution of physico-chemical functioning to technicity. On the contrary, closely associating technics with the preindividual interpretation of nature highlights how technicity is the invention of problematics with their own dimensions. Technics are not merely reorganizations of the physical phase of being as Simondon would have it. They individuate on account of their own preindividual nature, which "puts to question" the being that they are becoming.

Syntheses of Time in Simondon, Nietzsche-inspired Deleuze, and New Media
Iscen, Ozgun Eylul (Duke University; ozgun.eylul.iscen@duke.edu)

This paper addresses the temporality of Simondon's understanding of individuation as having the capacity 'to fall out of step with itself', which prioritizes becoming over being. First, it needs to be framed as a question of being, or identity that is never a determined source to begin with or that can be exhausted (as Simondon highlights with his term 'preindividual'). Secondly, it is important to think about the dynamics of 'falling out of step' in terms of the relationship between past, present and future. How do we change the dominant tendencies in the present,

conditioned by the past while reaching out to the open future? In this regard, I turn to Deleuze's Nietzsche-inspired synthesis of time that does not only repeat the past in the present but instead assembles it for the eternal return with difference (a return of that which makes them differ). Deleuze also emphasizes Nietzsche's notion of 'untimely' that refers to action or thought that is beyond what the present moment necessitates, or more importantly makes it seem possible. In this sense, I situate Simondon's 'falling out of step' in relation to the process-based and immanent nature of new media, which enables such future-orientedness while relying on repetition. I focus on errors and contingencies that are intrinsic to the operations of digital media, while creating moments of 'stepping out'. I look at the video artists, who work with skype/live video aesthetics that generates interruptive conversations at the cracks of determined subject positions and molar expressions.

Technology as the Theater of Transindividuation
Lukin, Vladimir (Duke University; vladimir.lukin@duke.edu)

The French philosopher Gilbert Simondon defines the living being as the theater of individuation. According to his ontogenetic philosophy, the individual retains the charge of the preindividual which allows it to participate in future becomings and engender new individuations. As he speculates in L'individuation à la lumière des notions de forme et d'information, community is grounded on the preindividual charge and therefore, apart from inter-individual relations, there should exist transindividual relations which can serve as the basis for new forms of collectivity. Technology, as he claims in On the Mode of Existence Digital Objects, is the mediator of transindividual relations but in order to make them effective, we need to reintroduce technology back into our culture. However suggestive, Simondon's description of a new form of society is quite abstract and allusive. Hence the question for media scholars who are willing to engage with his philosophy of technology: is his project essentially utopian and are his insights still valid in the era of digital media? What is the implicit politics which lurks behind his project of 'saving the technical object'? And if today our environment is oversaturated by digital mediations, does that mean that we arrived at the moment when we finally 'stage' the theater of transindividuation?

2C "Kant, Darwin, Smith, and Species Being" *MU240 Navajo*   **Chair: Dan Bivona**

Evolution in Metaphysics: Immanuel Kant and the Ethics of Species
Pruchnic, Jeff (Wayne State University; jeffpruchnic@wayne.edu)

While Kant's work predates Darwin's "discovery" of natural selection, the former was fascinated by pre-Darwinian scientific theories of species development; indeed, many scholars have connected Darwin's theory with Kant's numerous references to a hypothetical scientific theory of human historical development that could create a normative framework independent of religion. This talk traces how Kant's interest in such a theory, and the idea of a "normative nature" that could be the basis for ethics, inspired the first formalization of the species as a subject position or ethos that could be the center of theories of ethics. I argue that it was this shift that made ethical philosophy as we have come to understand it possible and then proceed to demonstrate how Kant's "normative nature" remains an unacknowledged but essential context for dominant theories of bioethics in the present. Finally, I complicate our dependence on Kant's

work as a foundation for bioethics by arguing that more recent research on evolution of hominids might suggest a very different "normative framework" for decision-making than the one proposed by Kant.

Animal Architecture and the Victorian Construction of Evolutionary Time(s)
Bivona, Dan (Arizona State University; dbivona@asu.edu)

Bird nests, underground burrows, beaver dams, honeybee hives, anthills, and termite mounds are all prominent examples of animal architecture. In this paper I will discuss some of the models of evolutionary time that emerge from late-Victorian science's fascination with animals that design and build. The discovery that animals build, and the dawning realization that a complex division of labor obtains among especially social insects, raises provocative questions about simplifications of evolutionary progress In the late Victorian period. Quite simply, The most successful species on Earth measured in terms of the total Earthly biomass that they account for, require new and more complex models of intelligence to be understood, as even Darwin himself began to understand at the end of his career.

The Narrative Place of Humanity in Darwinian Evolution: Between Instability and Linearity
Urban, April (Purdue University; urbana@purdue.edu)

Charles Darwin's narratives in *The Origin of Species* (1859) and *The Descent of Man* (1871) pivot on the concept of natural selection, which proposes the development of distinct species over long timespans, and on the appeal to biological traits as markers of descent and differentiation. The narrative positioning of humanity in Darwinian evolution wavers between arbitrary randomness and traditional resolution. As the account of man's descent from lower animals casts doubt on his exceptionality, so popular understandings of this descent rearticulate Darwin's tentative genealogy into a teleological narrative of progress. This tension between instability and linear hierarchy parallels the tension between modernism as an aesthetic movement and the historical period of modernity's hegemonic capitalist imperialist logic. More specifically, Darwin's long view of temporality arose in a mid-nineteenth century network that linked evolutionary concepts to ideas of progressive development, images of colonized and enslaved peoples, and concerns about female domesticity. Thus, the fundamental instability of Darwin's arguments was veiled by responses that mobilized the evolutionary account of the formation of difference as a linear narrative that rationalized the fortification of racialized and gendered hierarchies. Evolutionist discourse was deployed as evidence for "race" as biological fact and sexed embodiment as bound to gendered reproductive functions. In this paper, I explore the tensions innate to Darwin's texts and how his evolutionist paradigm was adopted as a teleological narrative engine for maintaining hierarchies of the human and modernity's consciousness of itself as the end of history.

The "Fine Iridescence" of Species Description: Rosa Smith and the Preservation of Self and Specimen
George, Jessica (Indiana University-Bloomington; jessgeor@indiana.edu)

In the nineteenth century, fish presented empirical challenges to ichthyologists attempting to identify and classify them. As scientist William Swainson wrote in 1822, "The impossibility of preserving the beautiful but evanescent colours of fish, and the unsightly appearance they generally present in spirits, have conspired to render our knowledge of these animals very imperfect" (*The Naturalist's Guide* 33). In this passage, Swainson addresses the temporal challenges of species description: an accurate description should depict the specimen as it appeared in the moments just after the catch, before its colors in life faded away. The revisions in the second and final versions of ichthyologist Rosa Smith's description "On the Occurrence of a Species of Cremnobates at San Diego, California" (ultimately published in 1881) expose a (perhaps prevalent) defiance of empirical protocol which responded to this challenge. Smith, upon the advice of her mentor David Starr Jordan, added effusive and ornamental language to her species description, in part to better relay the fish's color in life but also to distinguish her scholarly work and discoveries from those of other scientists. This paper examines the ways Smith's authorial voice helped establish her as a qualified participant in the American scientific academy as she preserved her ephemeral specimens, including their ephemerality and "evanescence," through linguistic fancy and descriptive excess. An examination of Smith and Jordan's correspondence reveals ichthyology's place as a site of tension between scientific and artistic labor and the fish specimen as an aesthetic object both constituting and resisting this encounter.

2D "Time and the Vampire Squid"   *MU242A Lapaz West*   **Chair: Fröydi Laszlo**
Laszlo, Fröydi, Karin Blixt, Kennet Lundin and Peter Carlstedt (independent artists and Gothenburg Natural History Museum; angoraart@hotmail.com)

We are a multidisciplinary group that, through collective readings and discussions of Vilsser and Louis Bec´s book, have investigated the creative potential of this most interesting work. The book is a scientific fable, and as such tries to let us see our human ways as mirrored by animals. However, Flusser and Bec wants us to dive even deeper into the world of the non-human other. Through experiments in both science and art our group asks what time and space could be to the Vampyrotheutis. With Flusser and Bec we speculate freely on how the vampire squid may live, love and develop its art and society. We dive slowly into an eternal darkness, try to survive the high pressure of the oceans abyssal zone, and speculate on what gifts this alien and antipodal environment might bring to sundrenched Arizona. For our panel presentation we want each group member to make an introduction to the work in progress. The introductions will be about 15 minutes each, and we will use our own background and field of interest to give perspectives on how both Flusser´s philosophy and Bec's art have inspired our collaborative and individual work regarding time and the non-human other.

Karin Blixt is one of the artistic directors of the Swedish theatre company, Trixter.
"Western storytelling mainly deploys the dramaturgy of "The Hero's Journey", brilliantly exposed by Joseph Campbell in A *Hero With a Thousand Faces*. Less known is that Campbell called for new myths due to our need to relate to the changes in our time.
Can new models for identification lead us to new models for dramaturgy and myth?"

Peter Carlstedt is a visual artist, acrobat and dancer. His contribution to the panel will be a performance.

"With music and dance I create a language to communicate emotional expression, as well as investigating how body and visual signs may relate to time and space. One way to do this is to let my mind go and move to the rhythm of the human or the non-human that we are still evolutionary connected to."

Kennet Lundin is a scientific curator at the Gothenburg natural history museum, working with marine invertebrates, research on the evolution of basal metazoan animals, and outreach on topics of biodiversity and nature conservation.
"I am interested in interdisciplinary projects to widen the scope and understanding of ourselves in relation to the organismal world, and novel ways of communication."

Fröydi Laszlo is a visual artist and the publisher of '284 Publishers', an artist-run project that specializes in art and theory publications.
 "Visualization may stem from bodily expression and sensorial engagement with our world, as well as from fantasy and the use of signs and language. How do we think about a life-form so alien to ourselves as the vampire squid? Is it possible to use the embodied experience that we in fact share animality with other species, to think "un-human" thoughts?"

2E "Times' Extreme Presence: 32 Million Year Femto Seconds to Cosmic Quadrillion Calculations Per Second" *MU242B Lapaz East*   Chair: Steven J. Oscherwitz

In this panel, we hope to exemplify some of the most sophisticated currently used scientific instruments related to the conference theme Out of Time. We will examine how scientists and artists use pictorial schemata in their work. These schemata characterize and exemplify Time's discrete instants, rates, flows, and simultaneity's, which occur on non-human time scales that are difficult to comprehend and often expand the time spans that can be experienced by humans by billions of orders of magnitude. Thus, we hope to explore how these extremely small and extremely long Time scales encountered by a biochemist and an astrophysicist can be virtually represented and modeled, even though they remain impossible to understand intuitively through experience. Then we will ask and explore the question: If we use a contemporary hybrid non-pictorial representational philosophy to interpret and explore these new instrumentally mediated presences of extreme time scales, does in fact our human experience remain Out of Time? We also explore and suggest that these extreme unimaginable Time scales open new dimensions for the philosophy of mind and artists, thereby having an impact on creating new perceptions and conceptualizations of Time that extend our human experience and presence of Time. Biochemist Petra Fromme and Astrophysicist Evan Scannapieco will first present their research and we will explore how Times' discrete instants, rates, flows, and simultaneity's are constituted, and experientially modeled in their research. Then artist Steven Oscherwitz interprets and proposes that these discrete instants, rates, flows, and simultaneity's of marks of Time in his drawings can be related to specific ideas on Mathematics, Manifolds and Presence in the non-representational philosophies of Husserl, Deleuze and more currently Alva Noe.

Temporal Manifolds and Presence
Oscherwitz, Steven J. (Independent Artist and Scholar; sjosch@uw.edu)

First, I will philosophically explore the creation, constitution and crafting of the of geometric planes, curves, circles, cubes, and the array of linear markings in my drawings as pictorial representations of discrete instants, rates, flows, and simultaneity's of Time. In contrast to this traditional interpretation that uses a pictorially representational philosophy, I will propose that the creation, constitution, and crafting of instants, rates, flows, in my drawings and the simulated models presented by our panel's scientists can be related to Husserls' discussion of Manifolds in the Prolegomena to his Logical Investigations; Simon Duffy's and James Williams writings on Deleuzes' ideas of Time, Mathematics and Manifolds; and more recently, Alva Noes' Enactive philosophy of Presence. I will explore and envision my drawings and the scientific research presented as part of what I term "Manifolds of Presence." These manifolds enable us to conceive, perceive, model and transform these extreme Out of Time scales into Deleuze's fabrics of differentials, perceptions in the scope of haecceities, dramas, and rhythms of the rhizomatic, that can in fact, leave humans In Time. In other words, I conceive, experience and perceive my art as having important and empowered theoretical significance towards these science evolutions. I will conclude by making two suggestions: That both my embodied marks in my drawings and these scientific instrumentation explorations of extreme time scales, interpreted through these more current non-representational philosophies, dissolves and obliterates art and science as separate disciplines. Then, I suggest that these Manifolds of Temporal Presence that I am proposing characterize and express a symbiosis of art and science that can have bearing on the empirical investigation of the extreme temporalities such as exhibited in the immortality of Cancer Cells.

The Timescales of Cosmic Turbulence
Scannapieco, Evan (Arizona State University; evan.scannapieco@asu.edu)

Our knowledge of the medium that fills the space between stars and galaxies relies on measurements from exquisitely constructed telescopes and simulations from supercomputers that are capable of 1,000,000,000,000,000 calculations per second. While these tools are necessary to unravel the full evolution of this material, I will describe how much of its properties can be understood by considering the physical Time scales that govern its evolution. I will show how the evolution of this material is determined by the ratios between Time scales: the characteristic time for the medium stirred, the characteristic time for the medium to radiate energy, and the characteristic times for chemical reactions to occur. While these times are enormous on human scales, through numerical simulation, we can study how they work together to determine the structure of the most tenuous material in the universe.

Time Diffracted in a 32 Million Year Second
Fromme, Petra (Arizona State University; Petra.Fromme@asu.edu)

I will present my work that uses ultra-strong and ultra short X-ray pulses from X-ray Free Electron Lasers (XFELs) to determine molecular movies of proteins in action. The structure and dynamics of bio molecules is discovered by shooting small crystals of bio molecules that catalyze reactions on the fly" with unimaginable short femtosecond X-ray flashed produced by the XFEL (the time difference between a femto second and a second is the same as between a second and 32 million years). Invisible crystals are formed from the proteins, the building blocks of life. Reactions are started while crystals fly in a jet towards the X-raybeam. Each time a

crystal is hit by the X-ray flash a diffraction snapshot of the protein dynamic in action is recorded. Ten-thousands of these diffraction patterns in random orientation are then merged to unravel the structure of the molecule for each time point in the movie.

2F "Weird Time" *MU246 Coconino*   **Chair: Bethany Doane**

This panel seeks to trace the connections between time and "the weird" in both its literary/cultural formations (from the Gothic to contemporary horror to 21st century "weird realisms") and the theoretical ways that we might think of time itself as weird, particularly after the understanding of "deep time" has taken hold. This might mean probing the uncanny relationship between time and space in "cosmic horror," or the relationship between the uncanny itself and time (since so much work has already been done on space in this field). How might new (speculative) realist philosophies and theories make "the weird" a genre or affect so apt for the present, and how does this aptness manifest culturally? Bearing in mind critiques of both speculative realism and weird fiction as "apolitical" or even openly oppressive, how might we rethink political engagement via weird time?

Moss-Temporality in Contemporary Weird Fiction
Sperling, Alison (Santa Clara University; alison.sperling@gmail.com)

This talk will explore this mossy liveliness of weird eco-fiction, drawing its key examples from VanderMeer's Southern Reach Trilogy, the story "This World is Full of Monsters" (received from the author with permission), and Michel Bernanos' novella The Other Side of the Mountain. In these examples of the weird, vegetal-hybrid life forms are the lens through which readers come to understand the changing ecological landscape of the Anthropocene. Reading vegetation offers alternative perspectives of land and life, temporality and story-telling in a moment of global ecological catastrophe. This paper asks what the spore-ous, proliferating, sprawling vegetation of weird fiction offers as an alternative temporality and imagining of the relationship between time and space, and what kinds of adjustments we might make in an ethics that responds to eco-crisis. Engaging recent theoretical works about plant and fungal life like Michael Marder's philosophical treatise Plant-Thinking and his photo essay The Chernobyl Herbarium with Anais Tonduer, Ben Woodard's Slime Dynamics, Anna Tsing's Mushrooms at the End of the World, and Christophe Bonneuil and Jean-Baptiste Fressoz's The Shock of the Anthropocene, this talk will explore a spore ecology– one which foregrounds the complexities of contamination and toxicity in the Anthropocene, emphasizes nonhuman plant temporalities, and explores the distinct spatiality and proliferation of mossiness in contemporary weird and science fiction.

The Time for Horror: Negotiating the Temporal Scales of Horror's Affect
Doane, Bethany (Penn State University; bdoane@psu.edu)

Recent theoretical discourse surrounding the Anthropocene and ecological crises has emphasized "deep time" or "cosmic time," inspiring and/or inspired by a renewed interest in weird fiction that also operates at these grand scales. The expanding popularity and influence of authors like Robert Chambers, H.P. Lovecraft, and Arthur Machen coalesce in what Ann and Jeff VanderMeer have called "the new weird" in fiction by authors like China Miéville, Brian

Evenson, and Livia Lewellyn, among others. Yet the horror of species extinction—at the inhuman scale of deep time—seems at odds with both the socio-political scales of race and gender, and the forms of horror most often read at these scales—namely the Gothic, the spectral, bodily, and psychological horror. This paper seeks to explore the relationship between the (in)human, time, and horror as an affect in relation to this scalar disjunction, in order to articulate political reading practices that need not reduce the elements of horror to the human scale. Drawing on theories of desire and the social from Deleuze, Lyotard, and Bataille, alongside theories of horror from Julia Kristeva, Dylan Trigg, Eugene Thacker, and Maisha Wester, I propose a reading of horror as a socially-circulating affect that moves between the scales of the human and the inhuman with implications for how we think about the operations of race and gender in fiction writ large. By way of example, I examine Stephen King's short story "N.," (2008) and Victor LaValle's novella, The Ballad of Black Tom (2016).

Thinking the Deep Future is Weird
Honold, Randall (DePaul University; rhonold@depaul.edu)

Insofar as we are able to think about long stretches of time, the past seems relatively conceivable due to the work of historians, archeologists, and geologists. Also, time travel is a familiar device in science fiction, so many of us are acquainted with the "what if?" exercises of counterfactual histories, utopian or dystopian societies, and planets with different ecologies. The imperative to think the "deep future" has emerged as one dimension of the Anthropocene, as we now know some of our current activities will have effects for tens of thousands of years. In this presentation, I want to comment two recent attempts to render the deep future thinkable from within the Anthropocene: Cixin Liu's Remembrance of Earth's Past trilogy of science fiction novels and Curt Stager's book of science writing, Deep Future: The Next 100,000 Years of Life on Earth. I will suggest that while neither book is ostensibly "weird" by current literary/cultural definitions, both unavoidably require us to enter into a "weird thinking" mode which if nothing else expands the spacetime of the political.

2G "Posthuman Peregrinations in Media" *MU238 Apache*   Chair: Kristina Sawyer

Cybervisual Simulacra: Posthumanism, Time and the Afterlife in Charlie Booker's Black Mirror and Ari Folman's The Congress
Ehrentraut, Judy (University of Waterloo; judy.m.e@gmail.com)

In How We Became Posthuman, N. Katherine Hayles famously questioned Hans Moravec's insistence that the future of posthuman robotics will let us extract consciousness from the brain and transfer it to a computer. She called "complacent posthumanism" a humanist fantasy of downloading the mind to overcome extinction through post-natural being. Using three titles that explore different nonhuman temporalities, I examine the "cybervisual simulacra," a posthuman existence where the virtual actor, by blending with and superimposing the real actor, disorients distinctions between real/virtual, reifying Baudrillard's simulacrum. Charlie Booker's "San Junipero" exhibits a 1980's beach town/virtual reality, where near-dying patients can infinitely live out their existences as their younger, healthier selves. Alternately, the episode "Be Right Back" deals with post-natural subsistence by evaluating the authenticity of a life-like "doll" with uploaded memories and learned behaviours adopted from its deceased self's virtual profile. Both

episodes complicate the ethics of immortal existence, re-setting life and the permanent transfer of consciousness to avatars. Finally, Ari Folman's The Congress explores this re-inscription to the literal extreme with the virtual re-creation of actress/character Robin Wright, generating what Paul Virilio terms a "stereo-reality" that undermines referentiality between real/virtual. I argue that these dystopian manifestations, particularly their inclusion of legalities over real, discarded bodies, demonstrate the potential consequences of avatars that are not cybernetically enhanced, but represent a suspension of time. Moreover, the coveted avatar-made-flesh, created from a blueprint of consciousness and tethered to the performance and body of the real, can overtake its legacy and memory.

Embodied Cognition, Robots, and Memory: Understanding Cloud-Computing as a Communication Triad in the Internet of Things
Sawyer, Kristina (University of Illinois at Chicago; ksawye3@uic.edu)

In discussing human-computer interaction (HCI) and the phenomenon of communication with rather than through computers, Cathcart and Gumpert (1985) argue that "computers serve as a proxy for another person, thus establishing an interpersonal communication dyad" whereby human and machine each serves as sender and receiver (p. 115). Borrowing from psychology, this research paper employs embodied cognition theory (ECT) (Wilson, 2002) as a framework for establishing robots as legitimate communication agents and artificially intelligent 'Others' (Gunkel, 2012) that are simultaneously embodied (i.e., sensorimotor) and disembodied (i.e., AI, cloud computing). According to Wilson's (2002) six forms of embodied cognition (EC), robots not only meet, but exceed those EC criteria traditionally held for humans and animals (Plec, 2013), particularly in areas of information processing and memory storage through the networked infrastructure inherent to the Internet of Things (IoT) cloud (Hou et al., 2016). Unlike Cathcart and Gumpert, this paper argues that human robot communication is best understood as a communication triad whereby the cloud serves as an important and consequential third interlocutor. As social robots diffuse in our homes, offices, schools, and hospitals, they promise perceptions of companionship, control, and convenience. However, the memorization of everyday life (Glenberg, 1997), stored in the cloud, knowingly and unknowingly make users susceptible to surveillance and commodification. Taking a post-humanist perspective, implications of cloud imaginaries (i.e., invisible, inconsequential, impermanent), externalized memory (i.e., AI and machine learning; data collecting, repurposing, sharing) and institutional power (i.e., privileges of remembering/forgetting, control, responsibility) are considered (Jones, 2014; Schrag, 2016; Suchman, 2007).

Unstable Aesthetics: The Quake Engine and Jodi's Untitled Game Mods
Lohmeyer, Edwin (North Carolina State University; ellohmey@ncsu.edu)

This presentation examines the technics of the Quake video game engine developed by John Romero and John Carmack at id Software between 1995-96 and the art modifications to the engine by artist duo Jodi (Joan Heemskerk and Dirk Paesmans) in their Untitled Game series (1996-2001). Specifically, I look at the unique triangulation between the technics of the Quake engine in its ability to render fully actionable 3D space, the abstract experimentation of Jodi's mods, and the player's aesthetic, phenomenal investment in Jodi's technical disruptions of Quake in Untitled Game. I argue that the material and technical conditions of the mid 1990s,

particularly the emergence of game modding communities and practices out of which Jodi appropriated the technics of the Quake engine, afforded the construction of a new type of political-aesthetic subject through an affirmation of difference; the aimlessness of play in these mods that reveals the strangeness of the player's phenomenal experience. The aesthetic work of Jodi's Untitled Game opens up the player to novel sites of bodily affectivity and non-human temporalities through a mimetic engagement with the formal disruptions of the engine. The affective experience of Jodi's mods at once spatially and temporally unbounds the body through an apperceptive and proprioceptive instability within a 3D space that does not condone to a Cartesian, perspectival regime of visuality. This presentation aims to contribute a material, historical, and phenomenal understanding of art modding practices within both games studies and art historical discourses.

After Minecraft: Synthetic Ecologies of "Far Lands or Bust!" and Block by Block
Johnson, Colin (UC Davis; cwrjohnson@ucdavis.edu)

On September 15, 2014, Mojang was acquired by Microsoft for 2.5 billion dollars. With this purchase, the software giant acquired the rights to Minecraft, a sandbox videogame played by hundreds of million people across a diverse array of populations and platforms. The value ascribed was due to its capacity as an incredibly rich field, or "open world", for development, play, mapping, performance, archiving, education, and storytelling. While attention has been given to the erosion of boundaries between work and play (De Peuter & Dyer-Wutherford 2009), and the reduction of bodies to units in the operation of computational infrastructures (Irani 2011, Bogost 2012), not enough has been given to the worlding-interfaces through which this playborious life is constructed, or the "architectures of time" that rhythm bodies to nonhuman scales (Kwinter 2002, Borch 2005). This paper develops the idea of synthetic ecology to contribute to the ways in which games can be understood to enact ecological relationships (Chang 2011, Milburn 2014). I follow two very different journeys through Minecraft, disentangling the scales of bodies and time within this open-world game. Block by Block, a charity established between Mojang, Microsoft and UN-Habitat, seeks to use the game as a 3-dimensional tool to visualize and re-design public spaces. "Far Lands or Bust!" is a 6-year, ongoing journey to reach the edge of the near-infinite gam maps. In both examples, I attend to the types of synthetic ecologies developed in these "afterlives" of Minecraft, following the desires cultivated by these new "worlding-platforms."

2H "Public and Popular Science, a Configurations Book Panel" *MU229 Santa Cruz*
Moderator: Ed Finn (Arizona State University; edfinn@asu.edu)

Craig McConnell (Cal State-Fullerton; cmcconnell@fullerton.edu)
Ed Finn (Arizona State University; edfinn@asu.edu)
Plotnitsky, Arkady (Purdue University; plotnits@purdue.edu)

2I "Communicating Science: Histories, Traditions, and the Post-Truth Era" *MU227 Pinal*
        Chair: Cheryl Knott

The Long 29th Day: The Publication and Reception of *The Limits to Growth*
Knott, Cheryl (University of Arizona; cherylknott@email.arizona.edu)

In an essay on the relationship of the history of the book to the history of science, James Secord has called for studies of "popular science" and "specialist science" to help us understand "the uses of specialized knowledge in everyday life" (*Science in Print*, 2012, ix-x). One example of specialist science packaged for a popular audience is *The Limits to Growth*, published in 1972. The MIT research team who authored the book used then-new methods of system dynamics to forecast the diminution of natural resources globally. To explain geometric growth to readers more interested in policy than in science, the authors told the story of a waterlily that doubled in size daily until it choked its host pond on the 30th day. The last day to avert disaster: the 29th. The story helped readers visualize geometric progression while also sounding the alarm about the increasing rate of environmental degradation. Launching a controversy surrounding the research team's methods and projections that continues to this day, the book provoked debate among economists and policy makers committed to continuing growth. By the time the team issued its 30-year follow-up, their original reassurances that equilibrium was a worthy and reachable goal had given way to the assertion that the globe was already in "overshoot," a point past the long 29th day of denial. The publication and reception of *The Limits to Growth* and its update offer an opportunity to consider three decades of impending environmental collapse from a book history perspective.

Science communication in the post-truth era
Niehaus, Amanda (The University of Queensland; amandacniehaus@gmail.com)

Science is not simply the presentation of verifiable evidence, but a process of rational thought and questioning used to derive significance from large amounts of information. The internet has given more people access to more data than at any other time in our history, yet it is increasingly difficult to discriminate facts from 'alternative' facts, in part because scientific thinking has become a partisan issue. In this *post-truth* era, public opinion is shaped more by emotional appeals than by evidence, making it even more critical that scientists engage a broader audience with their theories, outcomes, and perspectives. So how can we use fiction and personal essay as tools to communicate scientific ideas and promote critical thought on contemporary issues? By embedding scientific fact and philosophy within the narrative structure of essays, stories, and novels, can we reach more people, strengthen general interest in science, and broaden perspectives?

Observing the Future Present and Present Future in Alex Ross Perry's The Queen of Earth
Bruni, John (Grand Valley State University; brunij@gvsu.edu)

Written and directed by Alex Ross Perry, The Queen of Earth (2015) adds a temporal complexity to the question of second-order observation, that is, observation counts on the observer's position—both in space and time. What is being observed in the film is how the loss of a sense of entitlement affects future planning. Having managed the affairs of her father, a successful artist, Catherine is jolted by his death; shortly thereafter her boyfriend leaves her. I propose that Catherine's psychic breakdown, observed throughout the film, can be examined though a systems-theoretical analysis of Perry's artistic strategies. To begin, I look at how temporal pressures make any decision only useful for the moment, forcing another decision after that, and so on. In order to carry out a decision-making process that yields a hoped-for future outcome, what Niklas Luhmann calls a "synchronization problem" has to be solved. In the film,

Luhmann's "question of how the future present will appear from the present future" is dramatized from multiple timelines. Unlike most films, The Queen of Earth is shot in sequence, allowing for a realistic building of tension. There are also flashback sequences that provide a creative way to parse the differences between the future present and present future. My analysis looks at how these multiple temporal complexities are observed to catalyze the breaking down of the psychic and social systems that constitute Catherine's identity and shape her response to how others observe her relationship with her late father.

2J "Timing the Anthropocene"   *MU226 Graham*   **Chair: Suzanne McCullagh**

Anthropocene and Temporal Skepticism
Wilson, Alexander (Aarhus University; alexanderwilson@cc.au.dk)

The Anthropocene corresponds to a crisis in human futurity. Many theorists have noted contemporary culture's inability to imagine a future beyond capitalism and climate catastrophe. But to what extent is this exhaustion of futurity an effect of civilization's progressive denial of time? The history of philosophy and science reads as a progressive questioning of our mythical assumptions, themselves derived from primitive taboos and evolutionary conditioning. With roots in Aristotle and culminating with the theory of general relativity, this critical process has led us to question the very existence of time. As Einstein famously quipped, *the only reason for time is so everything doesn't happen at once*: in reality everything *does* happen at once; there is no unidirectional movement from past to future, only spatial locations upon the monstrous geometry of an immutable universe. This denial of time echoes how the doctrine of predestation affected the morals of the reformation. In a block universe where everything is written from the get-go, how is the future even of concern? Along similar lines, William James argued that monistic theories of causal determinism are incompatible with ethics and turn science into a performative contradiction. The same contradiction confronts today's increasingly knee-jerk experience of time—where our "short attention span culture" is dromologically (Virilio) distracted and mnemotechnically disoriented (Stiegler)—with a fundamental temporal skepticism. The same performative contradiction reappears in ontological speculation about what there is outside of time, in the great outdoors, where philosophers are forced to acknowledge a "logical time" (Derrida), a "static genesis" (Deleuze), or a "time without becoming" (Meillassoux), in other words, an undetermined quasi-cause that accounts for causality's determined chain of causes and effects. This is reflected in Unger and Smolin's recent attack on contemporary cosmology: they argue against its tendency to liberally multiply spatial dimensions and parallel universes and instead defend the concept of a singular universe where the laws of physics themselves change in time. From Aristotle to Augustine, through Hume, James, Boutroux, Bergson, Heidegger, Deleuze, forward to contemporary cosmology, this paper traces links between the Anthropocene as a crisis in futurity and the implicit temporal metaphysics of contemporary technological culture.

Ethico-Political Temporalities: Decision and Attention in Anthropocenic Thought
McCullagh, Suzanne (Miami University; mcculls@miamioh.edu)

This paper explores the ethico-political limitations of anthroponcenic thinking in terms of the distinction between state time and time as becoming and argues for the importance of conceiving of the Anthropos as co-constituted by non-human temporalities. The Anthropocene concept is

frequently deployed as a means of awakening ethical and political awareness of the urgency of anthropogenic ecological changes. While the becoming aware of the deep entanglement of human life and action with nonhuman lifeworlds is a significant ethical and political tasks of our time, this paper questions the view of time and politics that anthropocenic thinking promotes. Insofar as it promotes a view of political space constituted only by the temporality of human sovereignty and decisive action, it obscures the ethically and politically significant ways that human capacities for ethical and political responsibility are constituted in plural times of human and non-human co-becoming. Drawing from works that critique the politicized time of the sovereign decision found in the work of Carl Schmitt (Bonnie Honig, Mick Smith, and Horst Bredekamp) and those that advance a view of time as becoming (William Connolly, Gilles Deleuze, and Michel Serres), this paper contrasts the two conceptions of time in terms of the ethical and political capacities for attention and critical responsiveness to human nonhuman entanglements that they promote. Attending to time as becoming, it will be argued, facilitates an ethics of hesitancy and attention which is necessary for allowing human action to be constituted by a sensitivity to the more than human world.

End of Time: To exist outside all the hertz.
Paden, Jonathon (University of California San Diego, Clarke Center for Human Imagination; jpaden@ucsd.edu)

The greatest technology of the modern era has been the technology of time; not manufacturing, locomotion, currency, watches, calendars, labor or any other measure but the technological thought of time. Time or temporality being the believing bi-product of enlightened consciousness. The technology that justifies all measure, one of which appropriately called chronology birthed in myth, shows us therein lies time's inevitable end as myth. I will argue to truly be "out of time" we would have to break with our own faith in the technological belief of time. Here I propose an argument against the conception of time that looks at history as true justified inference building past, and how this history builds the inferred belief of the future speculation leading to present ego; causing the creation of rubric measure for our current ecology exhibited within science, art, literature, law, reason and culture. Our inevitable end of time, our demise in and of itself still lies in the systematic technological progressivism of temporal technology. Unfortunately tethered to nation states. We will look at how even a sheer frame humble in intent to free time via reference had need of a constant requiring measure, wresting power of the plane and linearity wedding itself to space became just another ruler in the same system. In our attempts to achieve universality we built a religion of science inescapable by any speed or distance, disconnected nature through momentum and come to believe in infallible fluidity deterministic or not of TIME.

Opening Receptions

SLSA Art Reception "Out of Time," *Harry Wood Gallery* **5:30 – 6:30**

SLSA Art Reception "Out of Time," Harry Wood Gallery, 5:30 – 6:30 pm

Arriving, 2017. Andy Brown
Andy Brown is a mural artist from Phoenix, Arizona. Influenced by the digital, analog, and natural worlds, his practice focuses on visualizing the layers and processes of time through paintings, drawings, and prints. He is the founder of SoldierLeisure, an art and apparel line now in its 20th year, and worked in Europe and Asia for Drifter Fashion and G Star before returning to his hometown to produce large-scale public projects and promote community-based art initiatives. He has received commissions in Japan, Mexico City, New York, San Francisco, and Houston. He has lead public programming and classes for a wide-range of audiences with community partners and organizations, including Phoenix Art Museum and Free Arts of Arizona, among others. In 2016, he launched a community-driven art space, Megaphone PHX, in central Phoenix.

Autoresponder.exe, 2012. Katherine Behar
Katherine Behar is an interdisciplinary media and performance artist whose works exploring gender and labor in digital culture have appeared throughout North America and Europe. She is known for projects that mix low and high technologies to create hybrid forms that are by turns humorous and sensuous. The Pera Museum in Istanbul presented her 2016 survey exhibition and catalog, Katherine Behar: Data's Entry | Veri Girişi. Her 2014 solo exhibition, Katherine Behar: E-Waste, premiered at the University of Kentucky before traveling to Boston Cyberarts Gallery. In 2018 she will present solo exhibitions at Robert Morris University and Emerson Dorsch Gallery. Behar is the editor of Object-Oriented Feminism, coeditor of And Another Thing: Nonanthropocentrism and Art, and author of Bigger than You: Big Data and Obesity. She is associate professor of new media arts at Baruch College, CUNY.

ECO-TAROT, 2017 – ongoing. Adriene Jenik
Adriene Jenik is an artist, educator and arts leader who resides in the southwestern US desert. Jenik's artistic projects straddle and trouble the borders between art, science, engineering and popular culture and have been written about in The New York Times, published in The Drama Review, and recognized by the Rockefeller Foundation. Her computer and media art spans 3 decades, including pioneering work in interactive cinema, online street theater and live telematic performance. Jenik's transdisciplinary projects include her ongoing endurance performance series "data humanization" and the extreme experiential learning experiment "drylab2023." She currently serves as Professor of Intermedia at the Herberger Institute School of Art at Arizona State University and affiliate faculty in the School of Sustainability and the School for the Future of Innovation in Society.

Investing in Futures, 2017 – ongoing. More & More Unlimited, Marina Zurkow & Sarah Rothberg
Marina Zurkow is a media artist focused on near-impossible nature and culture intersections, researching "wicked problems" like invasive species, superfund sites, and petroleum interdependence. She has used life science, bio materials, animation, dinners and software technologies to foster intimate connections between people and non-human agents. Sarah Rothberg is an artist and educator interested in the interplay between personal experience and complex systems—especially social media, human memory, and globalization. Sarah works in a variety of formats, including: virtual reality, installations, websites, workshops, one-liners,

animations, conversations across stalls in the bathrooms, songs sung quietly into the ears of CEOs.

Just a Hard Rain, 2017. Brad Necyk

Brad Necyk is a Canadian visual artist at the University of Alberta. His practice focuses on patient experience, auto-ethnography, psychiatry, pharmaceutics, and biopolitics. He recently finished as the Artist in Residence with AHS Transplant Services for the length of 2015-16, is an artist/researcher in a project on Head and Neck Cancer, and is completing an arts-based Ph.D. in Psychiatry. Currently, he is a visiting artist/researcher at the Centre for Addiction and Mental Health in Toronto, Canada. He has been shown internationally, was an artist in the 2015 Alberta Biennial, participates in artists' residencies, and delivers academic papers internationally. He is a committee member of several professional bodies, and is a Scholar at the Integrative Health Institute at the University of Alberta.

Neuro Memento Mori: projected meditations on death, 2015. Jane Prophet

Jane Prophet is a visual artist and educator. Her practice-based research and writing emerges through collaborations with life scientists such as neuroscientists, stem cell researchers, mathematicians and heart surgeons. She works across media and disciplines to produce objects and installations, frequently combining traditional and computational media. Current projects research the apparatus of contemporary neuroscience experiments, and the way our online/offline identities are blended via augmented reality and ubiquitous computing. The collaboration with neuroscientists resulting in Neuro Memento Mori was supported by a Humanities and Social Sciences Prestigious Fellowship Award from the Hong Kong Research Grants Council. Jane is Professor of Art and Interdisciplinary Computing at Goldsmiths College, University of London.

Slow Tuning: Metronome, 2005/2017. Monika Hoinkis and Carolyn Strauss

Carolyn F. Strauss is a curator, educator, and creative facilitator whose experience traverses the fields of architecture, design, contemporary art, emerging technology, and social and environmental activism. She is the director of Slow Research Lab, a multidisciplinary curatorial platform that offers an alternative space for research and experimental practice exploring 'Slow' forms of perceiving, thinking, acting, and (inter-)relating. There she engages a dynamic collection of thinkers and creative practitioners in a spectrum of local and international research activities—exhibitions, publications, workshops, in-situ dialogues, and immersive study experiences—realized in collaboration with academic, institutional, and nonprofit partners. She currently is one of the core mentors of the De Appel Curatorial Program in Amsterdam.

Stardust Series, 2017. Maria Whiteman

Maria Whiteman has published critical texts in Public: Art/Culture/Ideas, Minnesota Review and Antennae and an essay on Visual Culture in the John Hopkins Guide to Literary Theory and Criticism. In 2011, she had a solo exhibition at Latitude 53. Exhibited in the Alberta Biennial at the Art Gallery of Alberta 2013. Whiteman was a co-director of the 2012 (BRIC) Banff Research in Culture/ documenta 13 research residency and participated in the Geoffrey Farmer Residency at the Banff Centre in 2012. In Feb- March of 2016 "Touching" and "Loved you right up to the end" will be exhibited in the Urban Video Project "Between Species," Curated by Anneka Herre at Syracuse University, New York.

Time Studies, 2003-2006. Mark Klett

Mark Klett is a photographer interested in the intersection of places, history and time. His

background includes working as a geologist before turning to photography. Klett has received fellowships from the Guggenheim Foundation, the Pollock-Krasner Foundation, the National Endowment for the Arts, and the Japan/US Friendship Commission. Klett's work has been exhibited and published in the United States and internationally for over thirty-five years, and his work is held in over eighty museum collections worldwide. He is the author/co-author of sixteen books. Klett is Regents' Professor of Art and Distinguished Sustainability Scholar at Arizona State University.

Two Dog Dial, 2010; Slow **Scrutiny, 2017. Rebecca Cummins**
In addition to independent studio practice, Cummins is active in public art and cross-disciplinary collaborations with artists, scientists and community partners. She often investigates light, time, phenomena and the history of optics within a variety of photographic, sculptural and conceptual frameworks. Cummins has long been inspired by science, its history and instrumentation. Recent awards include a Cross-Disciplinary Conversation Award: Visualizations & Dialogues in Art & Biophysics (2017) sponsored by the Walter Chapin Simpson Center for the Humanities, University of Washington, Seattle, WA. She has exhibited widely internationally and has installed several public commissions. Cummins is Professor and Chair of Photomedia, School of Art, University of Washington, Seattle.

Friday, Session 3 9:00-10:30am

ASU Art Museum Reception 6:00 – 8:00 pm

Graduate Student Pub Night, *Casey Moore's Oyster House* **(850 South Ash Ave) 8pm – onward**

The ASU graduate group PHuN (PostHuman Network) invites grad students to join for this after-reception gathering.

Prisms Festival Concert Series: "Carla Scaletti and Kyma: Making the Invisible Audible" 7:30pm, *Katzin Concert Hall*

Carla Scaletti, *Mµ-psi: Making the Invisible Audible*

Carla Scaletti is an experimental composer, designer of the Kyma sound design language and co-founder of Symbolic Sound Corporation. Her compositions always begin with a "what-if" hypothesis and involve live electronics interacting with acoustic sources and environments.

Friday, November 10, 2017, 9:00 AM – 5:00 PM

Synthesis Responsive Environments / Time Out *Matthews Center 2nd Floor iStage, MC222*

We invite you to come to iStage atelier to immerse yourself in a rich media environment, talk with Synthesis' researchers and artists, or just relax in our playful, poetic atmospheres. (Synthesis: synthesiscenter.net, Serra Montreal: vimeo.com/synthesiscenter/serra, Experiential Atmospheres: vimeo.com/synthesiscenter/clouds)

Workshop Session 3: "Slow Tuning 1" Workshop with Angela Ellsworth and Carolyn F Strauss, 8:00 AM *Memorial Union* **(meeting spot)**

SLOW TUNING is a triptych of encounters curated by the Netherlands-based Slow Research Lab that offers SLSA conference-goers opportunities for experiencing attunement—an active bringing into harmony or feeling of being 'at-one-with.' Participants are invited to fine-tune their awareness as they Slow-tune their personal rhythms, seeking deeper resonance within themselves, with the local landscape, and with one another. On view in the Harry Wood gallery for the duration of the conference is Monika Hoinkis' **METRONOME** (2005) a traditional timepiece that has been transformed into a vehicle of Slow awareness. Rather than dictating a pace to be followed, this responsive artifact instead keeps time to the movements of the person closest to it, fostering intimacy and an enhanced sense of presence. On Friday morning, Carolyn F. Strauss joins with ASU's Museum of Walking in facilitating a **SLOW WALK** (2017) along the periphery of the campus. Participants gather at 08:00AM at Memorial Union Hall. The duration of the experience is one hour. During the first half, participants walk slowly together, synchronizing their cadences until they are moving as one body, gently pulled along by an energy that is greater than the sum of its parts. For the return trip, they turn their attention to features of the environment they are moving through, seeking a similar state of calibration with

the immediate landscape. The final Slow encounter is an early Saturday morning sunrise experience of **AIR APPARENT** (2012), James Turrell's outdoor skyspace located on the ASU campus (see Workshop Session 7: "Slow Tuning 2").

Friday, November 10, 2017, Session 3: 9:00 AM – 10:30 AM

3A "Weighing the Anthropocene" ASLE 2 *MU236 Mohave*   Chair: Helena Feder

This ASLE (Association for the Study of Literature and Environment) panel at SLSA consists of four papers that address the conference theme in terms of the Anthropocene and a respondent. What might be lost and/or what might be gained with this new measure of geological time, and what it might mean to weigh and measure -- to demarcate meaning or value -- in an age at once characterized by a new awareness of vertiginous scale and complex interconnection, and by the seeming collapse of agency itself into a singularity, an idea of "Man"?

Rematerializing Temporality in the Anthropocene
Hediger, Ryan (Kent State University; rhediger@kent.edu)

Charles Lyell's nineteenth-century geology helped to usher in a modern notion of temporality, a conception of earth time at a massively larger scale: not thousands but millions and eventually billions of years. One consequence of this change was the tendency to consider time a massive abstraction, akin to the thinking about environment in modernity as the stable background of changing human events. I suggest that this tendency to abstract time and space is a kind of mystification that indicates human failure to register fully these vast scales of reality. Thus, in part, our need for the concept of the "Anthropocene," which radically recasts ideas of time and space together, naming the present as a period in which the planet has been impacted by humanity and therefore rendered changeable and unstable. My talk will argue that the concept of the Anthropocene, by engaging geology and more especially stratigraphy, asserts a materialized temporality, as distinct from the abstract temporality that characterizes (or characterized) modernity. In the Anthropocene, space and time become examples of what Timothy Morton calls "very large finitudes." To explore what this shift means, I will engage with new materialism, object-oriented ontology, and related discourses to draw out some ideas for living in the Anthropocene: 1) Renewing attention to the local in a robust and complex way, as a nested reality, as part of thinking scale in a more flexible fashion. 2) Imagining Anthropocene futures not so much in terms of an abstracted and idealized futurity, but instead in material terms. Connected with premise 1, this means that solutions need to be conceived in terms of placed and concrete realities. 3) Rethinking labor, again in material terms rather than in the abstract moral terms common to neoliberalism and founding ideologies of work in the Western tradition, such as in Genesis.

Climate Change, Climate Refugees, Public Art, and Civic Engagement
Gerhardt, Christina (University of Hawaii at Manoa; crgerhardt@gmail.com)

On Sunday, June 21, 2015, about 5000 artists and activists working at the intersection of climate change and immigration rights undertook a provocative and controversial action in Berlin. Initiated and organized by the *Center for Political Beauty*, the procession carried (empty)

coffins, laden with wreaths, draped in German and EU flags, and bearing crosses typically showing the name of the deceased but here reading "borders kill," through the city center and to the lawn in front of the *Reichstag*. It was fenced off, but activists toppled the precarious makeshift barrier. And then, the lawn was quickly dug up, the coffins buried, and headstones installed. The group intended to bring attention to the growing number of refugees drowning in the Mediterranean, and the need for a solution. The majority of refugees arriving in the EU are from Syria. Notwithstanding the obvious and much larger political crisis that led to the Syrian refugee crisis, climate change also played a role, but is little discussed. Donna Haraway suggests that perhaps the Anthropocene might be characterized as lacking *refugia*, places of reconstitution. Haraway argues that "our job is to cultivate with each other in every way imaginable epochs to come that can replenish refuge. Right now, the earth is full of refugees, human and not, without refuge" (*Staying with the Trouble* 100). My paper will outline what role climate change plays in Europe's refugee crisis, and discuss this action and other public art interventions that draw on and foster civic engagement, or create refuge.

Refuge and Refuse: Environmental Education as a Measure of German Cultural Integration in the Solidarity Crisis
Jacobs, Joela (University of Arizona; joelajacobs@email.arizona.edu)

The high influx of refugees to Germany in the last few years has resulted in many private and state-funded initiatives for the new arrivals, focusing on language learning, cultural orientation, and environmental education. The latter is framed as a measure of cultural integration, and media depictions of such programs inadvertently detail the cultural specificity of "environmentalism made in Germany" and reveal institutionalized idiosyncrasies of a long-standing green leader. The news coverage and online self-presentations of these initiatives are utterly positive, yet despite ample evidence of good intentions, these feel-good depictions are problematic for many reasons: they are invariably dominated by German voices and specifically German environmental concerns, rendering the refugees and the global dimension of climate change secondary yet somehow responsible. Many of the articles begin with the imagery of trash surrounding refugee housing, seemingly not realizing that these portrayals suggest a linkage between refuse and refugees. Largely ignoring pressing issues of asylum housing and employment, it is not always clear whose problems these programs set out to solve, and the more tone-deaf reporting about them brings to light many problematic notions, such as conceiving of German environmentalism as *the* path to integration (a problematic notion to begin with) and as a universal good despite its apparent localism. This paper analyzes contemporary media coverage and civic discourse about environmentalist initiatives for refugees, which tells us as much about German perceptions and discussions of cultural values and environmental concerns as about refugees and the global dimension of climate change.

Respondent: Sarah E. McFarland (Northwestern State University; mcfarlands@nsula.edu)

3B "Roundtable: Inhuman Temporalities" *MU228 Cochise*   **Chair: Maria Whiteman**

The disproportions of time
Stoekl, Allan

Pascal held that "Man" is a creature of disproportion: caught between the infinity of the very large and the very small. We can argue that nowadays death-bound subjectivity is caught between the conflicting scales of different times: that of the instant, the human life, the species, the geological, the cosmic. In my short talk I will consider the implications of the conflict of times: what could "sustainability" mean in the context of these different times? Is time itself disproportional? If "sustainability" is all about preservation—defying the accelerated passage of time, preserving that which "is"—how can it be thought in the context of the superposition, the pileup, of different times? Monstrous time, disproportional time, implies the scale conflict of different times: death in and of the instant, in my life, of my generation, of my civilization, of the ecology we know, of my species, of the planet, etc. Are there many "sustainabilities," rather than one? In their different scales, and in the space they leave for what is left of the "human," are they themselves in conflict, or in disproportion? If the "human" is not a universal subject acting in and against the passage of time, but rather one effect of one scale of time, how can "sustainability" be seen stretching through, and against, the disproportions of different scales?

Not Velocity: Catching the Tipping Point
Seshadri, Kalpana

This paper is drawn from my ongoing research project "Posthuman Economics" that endeavors to intercalate the non-human with modern economic theory. The non-human is not necessarily "the animal" or even "the environment" understood as the container that sustains organic and inorganic matter. The working definition of the non-human here is (of course) theoretical and notional: the non-human is where the so-named anthropocene discovers its own limit, where the cozy *umwelt* of human being (human induced radical state shift for instance) uncovers an epistemo-logical aporia, beyond which there is no yonder.
One way in which this aporia can be evaded or avoided is to focus on the lack of synchronicity between human time and geological time. Thus the anthropocene (which is really our little *umwelt*) we lament is wreaking a "Slow Violence" on the planet that proceeds on such a protracted time scale that it is invisible and imperceptible to us (human beings). Velocity is understood (in human terms) as being dependent on time scales perceived as "long" or "short." Taking responsibility for the critical transitions at the planetary level implies a moral framework that transcends the time scale of the human. This paper does not directly engage the important moral and ethical problems raised by such a lack of synchrony. It defers the admonitory and the useful, to focus instead on singularities within our conception of time that challenge the determinism of the calculable/incalculable.

There are perhaps multiple singularities within time, and here I am interested in just one: the temporality of the tipping point, or the point at which a given complex of stable systems might harbor "critical thresholds" where they undergo abrupt change. A tipping point is expressed mathematically through what is called "fold bifurcations" that lead to irreversible change. So, here in a given system's tipping point, its structural irreversibility, indeterminacy, and (oddly enough) calculability gain precedence over notions of velocity. Tipping points are what happen to (heterogeneously connected) systems and networks and are known by their effects. Nevertheless, scientists suggest that there are generic markers to such moments that make it possible to anticipate (but never precisely, or exactly) these points of radical state shift

and bring disparate systems and areas of research into play with each other such as ecology and economy (Scheffer et al, 2002; Barnosky et al, 2012).

In economics, the tipping point is where ideas, commodities, financial trends go "viral." A useful metaphor here is the geometric progression of an epidemic (Gladwell, 2000). The bifurcation occurs within informational states and can only be calculated after the fact. Such "destructiveness" is endemic to the market's creative movement.

Mathematical expressions in earth sciences or economics aside, art can aim to capture tipping points through photography. By slowing down the moment when an egg rolls off the edge, or speeding up permafrost melt, the time of the tipping point is disclosed as neither fast nor slow. Movement appears as stillness. The point appears as an inside/outside limit to the way we think the anthropocene in relation to time. Like the rolling egg or frost melt, the tipping point can signify particular involutions of the human and the non-human, the organic and the non-organic, the local and the global. And because the "when" of the tipping point is uncertain, velocity, activity and passivity, are here brought into crisis thereby disclosing time as irreversible yet indeterminate.

Sombre Reptiles: On the Slow Time of Ambience
Nealon, Jeffrey T. (Penn State Univeristy)

The ubiquitous, ambient music-scapes that Brian Eno dreamed about in the 1970s – in his *Music for Airports,* for example – have become the mundane reality of our MP3-packed lives only half a century later, when everyone at the airport is wearing earbuds, listening to MP3 or internet music streams as they make their way between gates. And thereby I argue that the primary function of being a consumer of music has changed substantially: no longer is taste in music primarily something that offers group identity or individual distinction through Bourdieu's competition for cultural capital. The radical portability of the MP3 and the internet stream has allowed popular music to become a set of listening practices that allow us to make our way through the spaces of late-late capitalist life, deploying just the right kind and levels of attention, focus and distraction.

Indeed, the whole vocabulary of ambient, distracted consciousness has recently found itself inverted from its role as the Adornian bad guy, with distraction today constituting one of the utopian hopes for resistance in the present – functioning against the day of our hyper-intense attention economy. "Ambience" as a critical concept has in the past decade found itself repurposed from Eno's work of the 1970s. Today, ambient music is no longer thought of primarily as a maneuver to re-enchant drab disciplinary spaces like airports; rather, this new ambience functions as a kind of deterritorialized aesthetic consciousness that slowly traverses the surfaces of things like the "Sombre Reptiles" of Eno's *Another Green World*.

I'm thinking here of a disparate set of aesthetic and theoretical deployments of ambience in recent cultural and theoretical production, everything from Chinese-American poet Tan Lin's "ambient poetics" (which is a phrase also deployed in Tim Morton's recent work on ecology), to Tom Rickert's *Ambient Rhetoric*; or in literary criticism, consider the recent interest in ambient-style forms of reading that don't depend on close attention to seeking out and unearthing the hidden meaning behind textual details: surface reading (Sharon Marcus), distant reading (Franco Morretti), or post-critical reading (Rita Felske). Or consider the zen-like, nearly endless lists of stuff in so-called object-oriented ontology – birdcages and bowling balls and clown masks and cigarette butts.

These are all attempts, it seems to me, to deal with and give form to an emergent "distracted" kind of ambient aesthetic attention – one that refuses to focus on the last remaining neo-disciplinary jobs of getting with the program, or paying close attention to the task at hand. Because that's what advertisers and employers want from you: attention, and they want it 24/7. In a world where business gurus and TED-talkers alike remind us that "attention is the only worthwhile commodity of our time," the ubiquitous practice of an MP3-driven musical distraction may serve a retooled utopian function in the present, if only as offering a momentary respite from the just-in-time, which is to say all-the-time, dictates of virtual attention capitalism.

Such ambient slowness, as Deleuze insists, is not the opposite of speed, but a modality of speed. Slowness is a kind of speed, but speed is not a kind of slowness, just as the Magnetic Fields remind us that love is like a bottle of gin, but a bottle of gin is not like love.

Nuclear Timescales
Schwab, Gabriele (University of California, Irvine)

Thinking nuclear time by far exceeds the boundaries of human imagination. This challenge plays an essential role in nuclear necropolitics. The nuclear work of death is enhanced by the sheer incapacity of humans to comprehend the scale of destruction and its operation at two different levels: on the one hand there is the unfathomable speed and degree of instant destruction in the wake of a nuclear attack, and on the other hand the slow nuclear violence that afflicts survivors of nuclear attacks or accidents whose bodies are contaminated by radioactive materials. Affecting the reproductive system, the structure of cells and the genetic make-up, this slow violence is transmitted transgenerationally. In addition to the immediate impact of radioactive contamination to human health and reproductive futures, slow nuclear violence also unfolds through the long half-life of nuclear contamination that affects the environment, including soil, water and air. Even the time-scale of storing nuclear waste has become entirely unmanageable. At the same time, the threat of an all-out nuclear war presents the challenge to imagine the unimaginable: species-suicide, if not extinction of planetary life.

3C "Times that don't add up (I): non linearity" *MU240 Navajo*   **Chair: Pierre Cassou-Noguès**

In his novel Vendredi ou la vie sauvage, Michel Tournier links Robinson's new freedom to the emergence of another temporality and sees it as a break from « a morale of accumulation ». What Robinson must free himself from is a time in which things accumulate and are numbered : crops, marks on the pine tree that serve as a calendar. Tournier takes up Max Weber's claim that capitalism is born out of a certain view of time, according to which it is a sin to waste one's time: time is money as it were, which means that it is a number/ . This panel will investigate the procedures through which literature breaks up the temporality of accumulation: a time that is linear and where moments may be numbered and added up. There may be various ways to reach new times: ephemeral writings, timely labyrinths, suspended moments. The "glitch" in electronic literature also introduces a distortion in the arithmetics that determine our experience of time. All these processes seem to point to another way to reorganize time and its arithmetics. Time is not simply extended beyond human temporality, in order to make room for a world without us, but is distorted into new forms, and new worlds, where our ancestral statements may appear as relying on a contingent arithmetics.

Friday, Session 3 9:00-10:30am

"Werewoof one kinnot speak, therioff one mist be soylent," the Suspended Time of Glitches
Le Cor, Gwen (Université Paris 8; glecor@univ-paris8.fr)

This paper seeks to explore how writers of both print and electronic literature make use of the "destructive generativity" of glitches that Rosa Menkam theorizes. For Menkman, "The perfect glitch exists, momentarily, at the shocking tipping point between (potential) failure and a movement towards the creation of a new understanding." I wish to stand at this tipping point and examine how the glitch, as an aesthetic figure, opens a performative gap which interrupts the flow of reading, of language and/or of viewing and listening, and which, by doing so, generates new meanings.   I will both explore linguistic glitches, and built-in multilayered glitches that can be found in electronic works and which affect the visual and sound flows. The quote from the title is taken from Percival Everett's The Water Cure. In Everett's novel, as in Jonathan Safran Foer's Everything is Illuminated, the glitch steals our time ("I am sorry to have stolen your time") to perform the traumatic gap and allow the reader to experience the novel from the traumatic wound.

Apophenia or synchronicity? Making sense out of randomness in hypertext literature
Leveau-Vallier, Alban (Université Paris 8; albanlv@gmail.com)

In hypertext fiction, randomness and interactions with the reader affect how the story unfolds. Meaning is not attached to a unique sequence of events as each fragment has "links" to other fragments. The story does not follow a linear succession of events bound by causality, a unique path imposed on the reader, but leaves some room for contingency. Hypertext literature might therefore provide examples of fictions that do not abide by the axiom of causality, "fictions out of science" as Quentin Meillassoux calls them in his 2006 conference Métaphysique et fiction des mondes hors science. For Meillassoux, what we can read from the chaos of contingency is mere apophenia – identifying patterns in random data – but for the reader of a fiction, it is supposed to have meaning. In one of the first hypertext novels, Afternoon, a story, Michael Joyce mentions the concept of synchronicity, meaning produced by an improbable conjunction of events, or, as psychoanalyst Carl Jung defines it : "a meaningful coincidence". Such "meaning" does not come from the extraction of past causes but from the "co-incidence" of simultaneous events, and the low probability of their encounter is what makes it meaningful. It eludes "explanations" and any linear sequence of predictable events, to reveal an alternative

3D "Presenting and Representing Animals" *MU242A Lapaz West*   **Chair: Alan Rauch**

The Animal Image: The Art of Misrepresentation and the Misrepresentation of Art
Rauch, Alan (UNC Charlotte; Rauch@mindspring.com)

The image of the animal is never unmediated. Even the most casual observation of the most familiar creature (a robin for example) is processed through a remarkably dense collection of representations that each viewer has internalized. Often cultures internalize a dominant image, which then becomes a touchstone of what an animal should look like. By way of example, virtually every rhinoceros (whether living of represented) is some version of Albrecht Durer's rhinoceros and the very familiar Dodo owes its iconic image to a 1626 portrait by Roelant

Savery. (Oddly enough we don't know—and neither did Savery—whether the dodo he painted was male or female.) To be critical of the many misrepresentations of animals from Conrad Gesner to Roger Tory Peterson) is vital to a growing understanding of zoology, and so we mustn't let "misleading" artistic interpretations "speak" for the animal form. But, artistic representation is also one of the most important means we have to suggest what animals look like, and so the animal form (and zoology itself) absolutely needs the work of the artist. How do we reconcile art and science in this context? Do we reject George Stubbs's zebra as a creature stripped from its umwelt or accept it as the image that shaped our perception of zebras for close to two centuries? The answer lies neither in the animal itself nor in the art depicting the animal, but rather in the ongoing responsibility of viewers to create a thoughtful dialectic between animal and image. In this paper, I want to explore the tensions inherent in our perception of animals, whether viewing them through the ostensible lens of science or through the unpredictable palette of art. John Berger, Jacques Derrida, Thomas Nagel, and Giorgio Agamben all ask, in [...]

Womanliness as Animal Masquerade: Green Porno and Donkey Skin
Freda, Isabelle (Hofstra University; isabelle.freda@hofstra.edu)

This essay will examine the intersection of the human and the animal as it is performed by Catherine Deneuve in Jacques Demy's 1962 film, Donkey Skin and Isabella Rossellini in her two web series, Green Porno and Mommas. Both portray sexuality as masquerade and sexuality that is "outside" the law, inviting a dialogue with Derrida's assertion of the "troubling resemblance between the beast, the criminal, and the law." Deneuve's character's adaptation of the donkey's identity (by donning it's "skin") allows her to take a position outside of the law which parallels that of her father/sovereign who pursues her. While as a result she is treated as the beast she pretends to be and is forced to dwell outside of the village, Deneuve's appropriation of this sovereign position allows her to escape the law (of the Father) through another form of "femininity as masquerade". Relatedly, Rossellini's masquerade of various animals is undertaken through the donning of costumes which merge her sexuality with that of the animal in question, that is, without giving up her identity. This masquerade emphasizes, with even greater force than in Demy's film, the arbitrariness of the law's regulation of female sexuality: as Mamma-hamster in Mommas she eats a few of the offspring she has pulled from between her legs: now resolutely in the realm of the beast, the sovereign, and the criminal, her masquerade elicits laughter and liberation at once. Stephen Heath, "Joan Riviere and the Masquerade," Jacques Derrida, The Beast and the Sovereign. Eric Santner, The Royal Remains: The People's Two Bodies and the Endgames of Sovereignty.

Taxidermy, Time, and Suspended Death in Flaubert's "A Simple Heart"
Hohner, Max (Eastern Washington University; mhohner19@ewu.edu)

Human life is finite, thus human being possess an innate obsession with the passage of time. Taxidermy, through its haunting presentation of dead/alive, inanimate/animate animal bodies, alters the way in which both human and nonhuman animals experience the passage of time. Taxidermic animals provide spectators with the illusion of suspended life and, more significantly, suspended death. This insight not only helps explain human fascination with taxidermy, but also elucidates the intersection of taxidermy, time, and death. Nineteenth-century French novelist Gustave Flaubert draws on this precise intersection in his 1857 short story "A

Simple Heart" when detailing the life of the protagonist, a servant named Félicité. After forming numerous attachments only to outlive her human companions, Félicité preserves the physical form of her last and perhaps closest friend, a parrot called Loulou, when she has the bird stuffed. The stuffing of Loulou allows Félicité to believe that she seizes control of powerful forces, such as death, which, throughout the majority of her life, she faces as only a passive observer. Loulou's presence in the story frequently plagues critics who struggle to understand why Flaubert concludes his narrative with the protagonist's fixation on a taxidermic parrot. However, critics have yet to consider the full significance of Loulou's role as a taxidermic animal. Taxidermic Loulou enables Félicité to imagine that she suspends death, helps readers of the story resolve issues with interpreting Loulou's character, and introduces a new concept to studies in taxidermy: the ability of the taxidermic animal to suspend death.

3E "Mappings in Space and Time" *MU242B Lapaz East*   **Chair: Marnie McInnes**

Mapping Geological Time
McInnes, Marnie (DePauw University; mmcinnes@depauw.edu)

For many of us, maps of geological time have the same allure as do maps of land and sea. In my presentation I'll explore Geological Time Scale (GTS) charts, tables, and visual guides, considering the history of these representations as well as their varied designs. Graphic design affects how we see and make sense of the 4.6 billion years since the genesis of the solar system. While the International Chronostratigraphic Chart, updated regularly online, has (for good reason) a kind of sublime authority, geology guidebooks and textbooks recreate the GTS in an array of shapes: as spread-sheets, charts, clocks, and spirals – some simplified, others dotted with special symbols and details. Some versions encourage viewers to match evolving life forms with corresponding geological Eras; others illustrate the protocontinents at each stage of Earth's history. My presentation will consider how Time Scale charts and maps mesh with the visual analogies all of us use to picture "deep time" and our individual relationship with time. In teaching a course on Time and Literature several years ago, I asked my students to describe how they envision time. The answers were remarkably varied. In addition to rivers and clock faces, they pictured strata, ribbons, flashes, and psychedelic calendar pages flying off into space. Because time cannot be seen, we visualize it as an object, often without knowing that we are doing so. One intriguing question is this: which familiar visual metaphors for time inform the maps and charts geologists create?

Wide-Angle Engagement: Aerial Imagery and Landscape as Time-Based Media
Banazek, Kerry (New Mexico State University; kbanazek@nmsu.edu)

Proliferation of digital geographic media is changing everyday life in practical and phenomenal ways, and the number of artists using GIS data and satellite or drone images to craft responses to current affairs is rapidly expanding to match that influence. In this presentation, I contextualize the (deceptively) complex aesthetics and technical legacies that both everyday and artistic aerial views invoke. The overhead view's malleable nature owes something to the way it can be easily associated with both the act of providing context *and* the act of abstracting away from scales at which humans usually choose to provide context for their actions. Where histories of aerial imagery are inextricable from histories of military surveillance, they are also inextricable from

histories of camera technology, flying machines, urban development, and cartography. In elaborating these things, I pay special attention to aerial photographs of Superfund sites included in David T. Hanson's *Waste Land* series, originally composed in 1985 and 1986. I speak to the way Hanson and other pre-digital artists who are also environmental activists use aerial photographs to expose changes that take place incrementally. Photographs like Hanson's capture traces of the ways our lives and industries have re-written the land; by partaking of scales beyond normal phenomenal grasp and calling attention to how environmental changes accumulate across time (and to the speed with which damage can be inflicted upon landscapes that are themselves prone to slow change), these works of industrial ekphrasis demand "wide-angle engagement" with effects humans have on the more-than-human world.

Mapping the Terrain: Narratives of Land, Fossil Capital and Contested Sites
Michails, Maria (Rensselaer Polytechnic Institute; mariamichails@gmail.com)

The contradictory nature of boom-bust cycles of the oil economy is not new to Saskatchewan, Canada's second largest oil producer. The most recent boom (from 2000 until 2014) in fracked oil, though, has dramatically reshaped the lives and landscape of rural communities. Saskatchewan's agricultural lands have quickly consolidated into larger, more capital-intensive operations and, with the additional oil leases, have provided lucrative incomes for once struggling farmers. But not everyone is celebratory about the new oil production. The transplanted unemployed east coast fisherman-come-rig worker along with long-time residents quietly deal with the drawbacks to the boom, such as illness from flare stacks, high cost of housing, and family breakdown due to long working hours or extended absences. Then there's the spills and leaks contaminating landscapes and community chastising if anyone voices opposition to the oil industry. What narratives emerge amongst the different communities living in this region when discussing oil production, its history, environmental impact, and risks and are there commonalities amongst these stories? This paper is about a community-based art project that engages four different groups in the Southeastern region of Saskatchewan, ranging from First Nations members near Stoughton, to rig workers and high school students, and senior residents whose families have been in the area for generations. Oral histories are integrated with narratives of the natural history, the multi-layers of fossil capital, colonial settlements and the contested sites of Treaty land long forgotten. These narratives are not mapped linearly along the topographical surface but multi-dimensionally through time and space.

Time Machines: Synchrony, Change, Extinction in Four Thousand Islands along the Mekong River
Gan, Elaine (University of Southern California; eganuc@gmail.com)

H.G. Wells' 1895 novel introduced us to a modernist conception of a time machine, a humanmade device that renders time as place, a mode of transport that shuttles through a past, present, and future like beads on a string. Wells' lone time traveler witnesses our earth's planetary destiny: in thirty million years, the world will end facing an unforgiving sun that never sets. Wells' modernist future is a world without time. My paper explores a posthumanist temporal framework in which a terrestrial-aquatic multispecies assemblage enacts a time machine that comes into being through synchrony, change, and extinction. I argue that close attention to multiple temporalities and historical contingencies at play in specific landscapes opens up critical

pathways for approaching a more-than-human Anthropocene. Situated in an inland archipelago of the Mekong called Si Phan Don or Four Thousand Islands in Laos, I follow an assemblage of plants, water buffalos, catfish, and humans through their entanglements with river currents, raging waterfalls, and rainfed fields. Here, islands appear and disappear with the seasons; river and rain structure life and death in various kinds of synchronies and transformations; unexploded landmines, colonial ruins, and invasive species linger in the shadow of hydropower dams yet to come. This paper considers the archipelago as an elusive time machine conditioned by unruly and incommensurable temporalities of life and nonlife. I combine field observation, environmental history, feminist theory, and speculative fiction as critical-creative tools that might render the catastrophic Anthropocene as an indelible yet temporary modernist glitch.

3F "Art in the Waiting Room of the Anthropocene" *MU246 Coconino*
          Chair: Frenchy Lunning

This panel will look at three works of art that address a certain anticipation of a coming event – or hyperobject -- to use Timothy Morton's handy term for the apocalyptic-scaled time genre that portends a dystopian future for humans and other current beings. Each artwork is positioned as a phenomenon that appears due for extinction, ruination, or collapse as a dwarf black star – but not yet. Each work uses time's eternal partner space in a dance of dark probability to suggest in a time-twisted presentiment of an imagined future's past, a nostalgia for the already lost human aspect, as well as to gesture toward those aspects as the responsible agents of their own destruction. Like runes to be found in a human-less future, they stand as the timeless detritus of a careless civilization.

Buying Time: Alison Hiltner's It is Yesterday (2017)
Gasterland-Gustafsson, Gretchen (Minneapolis College of Art and Designpolis; ggasterland-gustafsson@mcad.edu)

Alison Hiltner's installation It is Yesterday, features collaboration between the artist, technology, and algae evoking science fiction sets and dystopian futures. She juxtaposes growths of Spirulina housed in large hanging polymer sacks attached to a host of tubes, clamps, wires, lamps, and machines that fosters the aeration and feeding of the algae colonies. A perforated disk on the wall invites viewers to "Blow into this." Viewers' breath is solicited while "algae transforms carbon dioxide into oxygen accounting for seventy-five percent of the oxygen we breathe". Hiltner's work moves algae into the spotlight while also containing it in a fully controlled and artificial system designed to perpetuate itself over time and ensure the future. The installation manufactures oxygen, and the carbon dioxide for the transformation is provided by the viewership. We humans are dependent on the environment we destroy with methods designed to serve human needs and the needs of capital. Hiltner's intervention is both utopic and ironic: a bit of the viewers' exhaled CO2 creates the conditions for algae colonies to resupply them with oxygen in a kind of air co-op. The apparatus is an expensive energy output for a process that has operated well for millennia outside the built environment. Thus the irony is compounded in Hiltner's efforts to subjugate, control, and harness the algae for her artistic and respiratory ends, to buy a little more time.

Olafur Eliasson's The Weather Project: Between the Endtime and Timelessness
Lunning, Frenchy (Minneapolis College of Art and Design; flunning@mcad.edu)

In 2003, Olafur Eliasson created a now famous site-specific work for the giant space of the Turbine Hall of the Tate Modern Gallery called The Weather Project. He had suggested that he had come up with the idea in the midst of a cold winter in London, "when people were talking about global warming." It was comprised of a backlit semi-circle of approximately 200 mono-frequency lights, reflected in a massive mirrored ceiling which completed the image a giant sun and a reflection of the visitors from below as a distant apocalyptic hallucination of an "upside down" present in another time and space. Giving a sense of a distinctly dying sun, humans lie as on a beach, frolicking and taking in the view, with a lack of intensity toward their own eminent demise as well as their own responsibility for it. Though facing a dimming endtime, they seem to taking their distant reflection as a suggestion of a timelessness that denies their finality and assures them of another time that has folded their endtime into a timeless utopic futurity, thus eliding an end of human time on earth. This paper will examine how this work allows for various meditations on time slips and alternative futures suggesting possible scenarios for the future time of humans, and other animals.

Temporal Conceptions: Smithson's Spiral Jetty (1970) as 'Hyperobject'
Stanek, Damon (Minneapolis College of Art and Designpolis; dstanek@mcad.edu)

As an Artwork, Robert Smithson's Spiral Jetty needs to be understood in different terms from how we traditionally conceive of art objects. Spiral Jetty is not a fixed temporal object, it will never convey the eternal qua the museum object preserved for posterity, nor make references to seemingly timeless symbols. Smithson's work is not stable, and is hypocritical to our understanding of Art because as an object it is not a discreet experience, but rather one which continually withdraws. As Timothy Morton notes in Hyperobjects: "An object, according to our understanding of hyperobjects, consists precisely of a rift between its appearance and its essence." The appearance, the seductive object encountered is not the real object which will always withdraw from us. It is the gap between these two in which we might posit Art. "…[T]he hyperobject distorts my idea of time" Morton states, as does Art. As Art, therefore, Spiral Jetty alters our temporal conceptions by bringing our finite existence to the fore, displacing us from the privileged subject position at the center of temporal experience. With the Speculative Realist critique of correlationism, hyperobject Art is not a form of constructivism; a wish toward enlightenment. Rather the hyperobject Art is an art for the age of asymmetry. An age in which reality is not in correlation with our subjective temporal experiences of external objects, but our confrontation with time explicitly—a time without humans in which the becoming of Spiral Jetty continues through the assemblage of halophile microbes and basalt.

3G "Game Studies 1: Roundtable with Ian Bogost" *Matthews Center 2nd Floor iStage, MC222*

This roundtable brings together some of the participants in the Game Studies Stream to chat and answer questions about what is new and exciting in game studies, about their current and favorite games, and about their upcoming projects, practices, pedagogy, and research. Ian Bogost, who is the Ivan Allen College Distinguished Chair in Media Studies and Professor of Interactive Computing at the Georgia Institute of Technology, will moderate the discussion.

Contributors:
Bogost, Ian (Georgia Institute of Technology)
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Coleman, Heidi (U Chicago)
Jagoda, Patrick (U Chicago)
LeMieux, Patrick (UC Davis)
Welsh, Timothy (Loyola New Orleans)

3H "Natural History Narratives in the Long 18th Century" *MU229 Santa Cruz*
      Chair: Hanna Roman

If this is Friday, who am I, anyway? Animality in Michel Tournier's Vendredi
Rose, Elizabeth (University of Colorado, Boulder; elizabeth.rose@colorado.edu)

Whereas traditional philosophy has used the study of animality to define ways in which man is distinct from animals, modern, interdisciplinary thought takes a new approach. The novel Vendredi, Michel Tournier's rewrite of Daniel Dafoe's 18th century work Robinson Crusoe, explores the notion of finitude as not limited to human existence. This direction is possible because Tournier's Crusoe is a sexual being, in contrast to the non-sexual character in the original work. My paper explores how this modern Crusoe engages with the ideas of Martin Heidegger, Sigmund Freud, Friedrich Nietzsche and other philosophers on the topic of animality and the related areas of language and the effects of isolation on man. Of particular interest are several corporal phenomena that Crusoe endures, that prepare him for an eventual transformation. I demonstrate how, through experience of animality in its multiple manifestations, Crusoe constructs a conception of being that not only ignores the distinction between man and animal, but that encompasses all living organisms.

Island Time: Ecology, Empire, and (1719 and 1815)
Cole, Lucinda (University of Illinois, Urbana-Champaign; lcole323@gmail.com)

This paper focuses on an 1815 version of Defoe's trilogy illustrated and annotated by "the Hydrographer of The Naval Chronicle." A British periodical founded by James Stanier Clarke and John McArthur, and published between 1799 and 1818, The Naval Chronicle was in many ways the public relations arm of the British Royal Navy. The 1815 edition of Robinson Crusoe, correspondingly, was (according to its title) "Revised and Corrected for the Advancement of Nautical Education." Its elaborate notes define nautical terms used in the novel and attempt to place Robinson Crusoe in an identifiable temporal, geographical, and natural context. What interests me is what these notes tell us about island ecologies in the expansion of the British empire. As environmentalists have argued, entire islands had been devoted to the provisioning of ships, which could stop at particular islands for specific meats, including goats, seals, and pigs. The 1815 Crusoe edition mentions some of these islands as provisioning stations, and provides elaborate and presumably realistic notes on animals on English trading routes. It thus allows us

to explore the differences between Defoe's fictions of island ecologies in 1719 and their reframing a century later, at the end of the Napoleonic Wars.

Inventing Natural Historical Time: Rewriting the Geography and Geology in the French Enlightenment
Roman, Hanna (University of Hawai'i at Manoa; hroman@hawaii.edu)

In the early European Enlightenment, many natural philosophers believed that the geographical and geological monuments of the Earth such as oceans, lakes, rivers, islands, mountains, valleys, and sedimentary strata could be explained according to the same system of interpretation as the events of the Bible. Nature was depicted as a physical representation of the events of Scripture. For instance, the ocean symbolized the human transgression of God resulting in the great Flood, which ravaged a once-perfect, waterless, smooth world devoid of geological and temporal imperfections. The ocean and other geographical phenomena represented history, temporality, the corrupt age of humankind. Yet they were also prophesies of God's plan for the future at the end of historical time, when the true, perfect nature of the world would again be uncovered. This paper proposes to examine the work of French Enlightenment geographers, geologists, and natural historians, including Buffon, Boulanger, Demarest, and D'Holbach, who secularized the Earth's story by reading more time into the past, giving it new scientific and humanistic value. Interestingly, however, the process of inventing time depended on the discursive and epistemological structures of Catholic Tradition, notably reading the world as a book and debating the literal and figurative meanings of its 'text.' The future was no longer apocalyptic, the trajectory of history no longer finite and circular. Natural phenomena no longer referred to Biblical events. However, reading nature remained a deeply interpretative process of understanding the past in order to envision a better future, a terrestrial paradise within historical time.

3I "Social Time: The Temporal Pressure of Media and Infrastructures" *MU227 Pinal*
   Chair: Deborah Levitt

Lefebvre identified the key problem of modern production: abstract space increasingly replaced social space, both in theory and practice. His later account of rhythmanalysis shows that the same applies to the production of time: abstract time replaces social time. Usually, in accounts taking issue with or seeking alternatives to abstract time, Bergson's concept of duration has played the integral role, for it forces us to deal with the pressure of time rather than abstract time. But Lefebvre draws out of Bergson something that is usually overlooked or downplayed in Bergsonism: the social production of time. Accounts of duration indeed acknowledge the collective nature of duration and affect but usually speak in terms of individual aesthetic experience. This panel proposes to move in both directions. We wish to reconsider the "social time" of media and infrastructures, that is, their collective temporal pressure. The challenge of Bergson with Lefebvre is that it urges us to think, like Massumi and Barad, in terms of infra-individual intra-action instead of individual interaction. If, for instance, two or more people meet only to interact with their cell phones, we need to consider the collective field of temporal pressure comprising people, platforms, and infrastructures. Thus this panel proposes to look at media and infrastructures not in terms of whether they impede or enable social interaction but in

terms of how and how much they impede or enable social intra-action. This is what constitutes social time.

Arrhythmic Times: Pervasive Screen Pressure and Social Media
Lamarre, Thomas (McGill University; thomas.lamarre@mcgill.ca)

Screens today are everywhere, ubiquitous and pervasive, and whether perceptibly or imperceptibly, they exert pressure on us. What is the temporality of this pervasive screen pressure, and what are its social implications? This paper proposes to look at different ways of organizing temporality and sociality via screen ecologies or infrastructure complexes. On the one hand, the natural and manmade disaster unfolds in real time across screens of various formats in diverse locations: you may follow it, for instance, on television screens in households, or on smart phones while commuting or taking a break, or on mega-screens in public spaces. Where broadcasting schedules once strove to synchronize programming and audiences, today it is the emergency or disaster that serves to synchronize screen time. The disaster thus tends to create a community on the model of the national, regional, or global community promised in the heyday of broadcasting, but in a state of emergency. On the other hand are everyday social interactions via screens, whose temporality tends to mesh with the wave-like rhythms of daily life, but in order to deterritorialize them. Something arrhythmic is introduced into social time, which is potentially different from daily life (rhythms) and from the disaster (synchronization). With reference to contemporary media forms that focus on social media and games, such as Persona 4 or Terror in Resonance, this paper proposes to explore the collective social implications of arrhythmic times.

Hidden Mediations: Social Time and the Eeriness of Infrastructure
Bering-Porter, David (The New School; beringpd@newschool.edu)

Media infrastructures now surround us but, like any infrastructure, they are most easily perceived when they break down. David Lynch's work reveals the dark side of social time, where the collective temporal pressure causes dissonance, not euphony, and an otherworldliness becomes apparent. Rooms with red curtains, flashing lights, and low, buzzing tones signal a passage into a set of relations beyond our everyday experience, yet normally hidden from our perception. In Lynch's work, these hidden mediations become most apparent through the media infrastructures that surround us, such as telephony, video, and cinema, yet fracture us, presaging the social fragmentation considered a hallmark of the digital age, and reframing it as something that fractures the individual. These occult infrastructures traverse the boundaries and fissures of subjectivity creating echoes and arrests, rhythms in social time that are eerie precisely insofar as they reveal the hidden structures and mediations that surround and traverse us as individuals; an occult infrastructure of the infra-individual. The eerie is a feeling marked by a moment of failure in an ontological rhythm: it is a sign of the dissonant, the out-of-tune, the off-beat. Framed by the encounter between Lefebvre and Bergson on the social production of time, this paper uses Lynch and other media artists as a way of exploring the eeriness of infrastructures in order to reveal the cracks in the surface of the abstract and empty time of capital, where symptoms, in the form of hidden mediations, well up from below.

Preception and Spatetime in NeuroSpeculative AfroFeminism
Levitt, Deborah (Lang College, The New School; levittd@newschool.edu)

In this paper, I investigate the productive disjuncture between the temporal design of VR's perceptual infrastructure and the image of emancipatory spatiotemporal opening performed in Hyphen-Labs' "NeuroSpeculative AfroFeminism." The spatiotemporality of this VR experience—an experience cordoned off from what we conventionally think of as social interaction—allows us to think the time-space of social intra-action. VR's perceptual infrastructure depends on an incredibly precise timing. It works against delay—or, in its own terms, latency. Eye and head movement must trigger an almost instantaneous shift in visual field and environment. If the interval is too great, it produces nausea. NSAF is a project that contests the forms of social domination and exclusion that exist for women of color in relation to science and technology. Its VR experience transforms the culturally-specific time-space of a hair braiding salon: Braids attach "Octavia electrodes"—a redesign of electrodes for transcranial direct-current stimulation—and the neuro-optimized space morphs into a vertiginous, futuristic, hallucinatory realm where the smooth movement of traversal a-syncs the rhythmic chimes of the music. The precisely mapped and timed interventions into the human sensory apparatus demanded by both tDCS and VR is deployed to enable a swerve in time-space. The encounter NSAF stages between the macro cosmological dimension of speculative time and the micro engineering of perceptual infrastructures provides an entry point into the problematic of a social time conceived as infra individual, and crystallizes broader issues around infrastructural pressures and social time.

3J "Roundtable: Edinburgh Companion to Animal Studies" *MU226 Graham*
      Moderator: Lindsay Kelley

In this roundtable, contributors to the forthcoming Edinburgh Companion to Animal Studies will discuss current topics and disciplines that are affected, enriched or put into dispute by the burgeoning scholarship on Animal Studies. What new questions and modes of research need come into play if we are to seriously acknowledge our entanglements with other animals? World-leading scholars from a range of disciplines, such as Comparative Literature, Philosophy, Art, Biosemiotics, Ethology and Geography, set the agenda for Animal Studies today. Rather than a narrow specialism, this book shows how we think of other animals to be intrinsic to fields as major as ethics, economies as widespread as capitalism, and relations as common as friendship. The Edinburgh Companion to Animal Studies is edited by Lynn Turner, Undine Sellbach, and Ronald Broglio.

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3K "Rountable: Science Fiction as Protest (I)" *MU224 Gila*   **Moderator: Lisa Yaszek**

From its inception, a sizable production of science fiction has been predicated on a sense of socio-economic, political, and temporal urgency. SF has often been a vehicle for protest through challenging us to think what would happen "if this goes on." Early SF editor/publisher Hugo Gernsback argued that SF was perhaps the only narrative form that could adequately prepare modern people for the rapidly-approaching technoscientific future, while postwar authors recall that SF was virtually the only vehicle of political dissent available to Cold War Americans. More recently, feminists, futurists, ecocritics, animal studies scholars, and others have used SF to rethink the necessary relations of science, technology, gender, race, class, and the natural world in both our own and possible futures. And just as SF writers and scholars recognize the genre's power to interrogate technoscientific developments and political structures, SF authors are frequently hired by governments and NGOs across the world when they feel it is time to think about science and society outside the box, and institutions such as ASU's own Center for Science and the Imagination explicitly commission SF narratives to address what they see as the most pressing issues of our day. These roundtables will consider SF as protest: how and why authors and readers turn to SF when they feel we are approaching a crisis either created or ignored by current institutions of power; and how SF authors and scientists alike use speculative tropes to make arguments for and against critical courses of technoscientific research and political action.

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3L "The Other Side of Time: Afro-Science Fictions in the Transatlantic Time Zone"
   MU225 Yuma **Chair: Kieran Murphy**

For this panel, we have synchronized a critical apparatus for investigating transatlantic time. What is transatlantic time? A little-known time zone brought forth by the African Diaspora. You won't find it on the map. It's a creolized temporality where past, present, and future don't flow in that order, and where "on time" always means "too late." Creolized temporality finds its best expression when it's staged. We've therefore looked for its expression in the theatre and concert hall. On these stages, we argue, Eurocentric temporality breakdown and is shown to be anything but absolute. To approach the non-linear clockworks of creolized temporality we had to proceed without regard for traditional conceptions of time, place, and history, and did so through three synchronistically related case studies: theatre in the aftermath of the Haitian Revolution, Afro-Futurism in the music of Sun Ra, and blood music in Tananarive Due's novel My Soul to Keep. Beyond being products of the African diaspora, these three cases studies have at least one thing in common, though: they manifest a viable counter science operating in and through the transatlantic time zone. We consider Eurocentric time as officially ended.

Isotope Teleportation
Youngquist, Paul (University of Colorado-Boulder; paul.youngquist@colorado.edu)

This paper examines Sun Ra's relationship to various forms of transportation: railroad, rocket, music, and poetry. It aims to illuminate the ways Sun Ra understands transportation, movement through physical geographies to other worlds he identifies with outer space. I'll begin with a discussion of the history of public transportation—specifically the elevated train—in Chicago, where Sun Ra landed in 1946 to begin his intergalactic musical odyssey. The "L," as it was and still is known, offered a public means of travelling beyond the segregated space of the South Side, transportation for an active musician to and from gigs and the recording studio. Sun Ra memorializes that service in his early tune "El is a Sound of Joy," which I'll examine to create a connection between Chicago's trains and a more insidious form of transportation fundamental to the African American experience: the slave ship. Using the famous images of the Brooks slaver published by early abolitionists, I'll argue that Sun Ra invokes the history of the Middle Passage to transform it: he turns slave ships into rocket ships and blasts them into outer space in pursuit of better worlds than those available to blacks in South Side Chicago, America, or on planet Earth. His propulsion system? Music—space music as a means of transportation that moves black people beyond social spaces of confinement to worlds conducive to their freedom. I'll end with a close reading of the marvelous tune, "Rocket Number Nine Take Off for the Planet Venus."

Music in the Blood: Race, Heredity and Culture in Tananarive Due's *My Soul to Keep*
Pierrot, Grégory (University of Connecticut at Stamford; gregory.pierrot@uconn.edu)

Tananarive Due's 1997 novel My Soul to Keep tells the tale of Dawit, a history professor and music scholar who also happens to be the member of a sect of immortals. He had made a life for himself among the rest of us, but his peers, the Searchers are out to find him. Dawit will do anything to keep his secret from the world but he wants to tell his wife Jessica and daughter Kira, and perform the ritual of immortality on them. My Soul to Keep is a rollicking tale of betrayal and overcoming. It is a self-conscious and somewhat tongue-in-cheek tale of blood and reflection on race and culture. Dawit literally embodies African heritage in the United States, and as such proves to be simultaneously deadly and a miraculous cure. This presentation will focus on the ways in which the novel, notably by way of Dawit's careers as musician and musicologist, feature music as an alternative—positive and negative—to blood. In the five hundred years of Dawit's life, paralleling as they do African connections with the new world, music and blood give two ways to consider race, and two ways to keep time.

Rethinking Science in the Wake of the Haitian Revolution
Murphy, Kieran (University of Colorado at Boulder; kieran.murphy@colorado.edu)

The camera obscura could be considered a "black box" of Romanticism. Unpacking it can give access to thoughts and transatlantic interactions that have been lost since their initial appearance hundreds of years ago. One of the main recovery efforts that helped locate this remarkable black box began with Sarah Kofman's study on the recurrent invocations during the nineteenth-century of the camera obscura as a theoretical model. Kofman brought to the fore the critical importance of this black box by showing how its image-making function deeply impacted the exploration of cognitive and epistemological questions in authors such as Rousseau, Marx, Nietzsche, and Freud. She observed that, over time, the meaning conveyed by the camera obscura shifted from transparency to opacity. Varying interpretations of the camera obscura had at least one thing in

common, though. They manifested, often unwittingly, a fetishist disposition in European scientific thinking. In this paper, I examine a play published in Port-au-Prince in 1820 entitled Le Philosophe-Physicien, which, I argue, is an early critique of the fetishist disposition in European scientific thinking. Penned by Juste Chanlatte, this comedy relies on the camera obscura as a prop and a trope to unveil the fetishist aspect of the European idealized conception of scientific knowledge as the transparent expression of truth. When read together with Chanlatte's historical account of the Haitian Revolution, Histoire de la catastrophe de Saint-Domingue (1824), the local and transatlantic interactions at work in the play will become more apparent. They will also prompt a revision of the genealogy of modern science that must include the radical poetics and politics of Haiti's first leader, Jean-Jacques Dessalines, the magico-religious beliefs of the Haitian peasantry, and the magical tricks of an anonymous young Haitian girl.

3M "Sounding the Creaturely" *MU248 Rincon*   **Chair: Daniel Gilfillan**

Listening Before, Beyond, and Alongside the Human: On Parrots, Sound, and the Agency of the Non-Human
Gilfillan, Daniel (Arizona State University; dgilfil@asu.edu)

Sound tinges human awareness of the world, pitching us into the intensity of a moment, while also attuning us to our surroundings across a more sustained period of time. Yet, the modality of sound also uncovers a range of sonic productions that exist before, beyond, and alongside human experience. This paper examines one sound-based example that imagines acoustic realms where human voice and human noise reside solely as players within a larger phenomenology or ecosystem of communication. It involves a series of sound installations known as *metamusic* by the Austrian artist collective *alien productions* and their development of musical instruments for a group of rescued African grey parrots. What is at stake in locating a non-human origin point for the production of sound is the acknowledgement that human-based reception of sound can never fully capture the full spectrum of sound production made available within any time-delimited space. Because we cannot truly inhabit the auditory receptors of these other, non-human sound producers, nor place ourselves inside the geological formations or atmospheric conditions that affect acoustics, we can only make theoretical assumptions about the production, transmission, and reception of those sounds that comprise the acoustic composition of any soundscape, or sound-based object. Being able to arrive at this realization is an important step in rethinking our notions of multispecies agency and in opening ourselves up to a wealth of alternative ways to encountering sound, and seeing through them new avenues for signification and knowledge production.

Nonhuman Temporalities: Songs of Black-capped Vireos and Blue Whales
Warde, Ann (Independent Scholar; amw38@cornell.edu)

A recording of the song of a Black-capped Vireo, when played at a rate slower than its actual speed, reveals more song notes than humans can distinguish when listening to a living bird. Contrastingly, we perceive what is considered to be one note of a blue whale song as a thirty-second series of slow pulses. And if a recording of these pulses is played back at a faster speed, our ears "integrate" the series of pulses into a single sound gesture. What do the whales perceive? Do whales experience time passing at a slower rate than humans, and at an even

slower rate than birds? If, as may be the case (since they are mammals and share some structural functionality with humans), blue whales do perceive an "integrated" sound gesture, the integration process would happen with respect to a nonhuman sense of time, and it would employ a differently calibrated perceptual mechanism. From a thorough scientific perspective, and also from our thinking about the philosophy of time and our perceptual explorations of time scales in literature and music, what might we come to understand regarding a potential continuum of time scale perception among humans and animals? And, specifically, how might distinct differences in the time structures of the songs of birds and whales, and in our human perceptual experiences of these, facilitate an exploration of this question? An in-depth overview of current and historical scientific findings, drawing in parallel also from philosophical, literary, and musical sources, will inform this investigation.

Creaturely Entanglement and Songs from a Younger Earth in Thoreau's Walden
Katopodis, Christina (The Graduate Center, CUNY; ckatopodis@gradcenter.cuny.edu)

Much of Henry D. Thoreau's *Walden* is about creaturely entanglement, Tobias Menely's term for the intimate, interrelational existence of humans and nonhumans (2015, 15), so much so that it can be difficult to discern between Thoreau's voice and what Menely calls the "creaturely voice," especially that of birds. *Walden* spans the two years of Thoreau's cohabitation with nonhuman animals. He writes, "I found myself suddenly neighbor to the birds; not by having imprisoned one, but having caged myself near them" (1854, 61). That he parallels himself to the birds--"As the sparrow had its trill...so had I my chuckle or suppressed warble which he might hear out of my nest" (79)--raises the question of whether this is a display of anthropocentrism or an attribution of independent subjectivity to the nonhuman animal. I argue for the latter: Thoreau considers birds musicians and even prophets chanting ancient hymns passed down from generation to generation. Female birds make aesthetic selections each mating season; bird songs have been perfected over the centuries, telling of a younger earth in an oral history as valuable as the epic poetry of Homer and Virgil to Thoreau. Branka Arsić argues in *Bird Relics* that Thoreau considered them "immortal beings" due to their absence from paleontological records in his time (2016, 23-25). Indebted to Arsić, I take a sound studies approach to birds' subjectivity and nonhuman agency to examine how Thoreau, as a musician and transcendentalist, relates--and instructs us to relate--to nonhuman neighbors and their temporalities.

Tropes of Extinction: Lemurs in the Work of Gerald Durrell, Allison Jolly, and Patricia Wright
Pollock, Mary (Stetson University; mpollock@stetson.edu)

Heise notes (Imagining Extinction, 2016) that Quammen's description of the last dodo's death (Song of the Dodo, 1997) exemplifies the elegiac mode in recent extinction narratives. Similarly, the elegiac appears in stories about lemurs by Patricia Wright (who appears in Quammen's book), Allison Jolly, and Gerald Durrell. the suborder lemuroidea evolved sympatrically in Madagascar to fill niches which, on larger land masses, are occupied by more disparate species. Sympatric evolution offers benefits (closely related species evolve for different functions within the same territory) and incurs risks (under pressure, specialists lose to generalists). Lemurs first faced extinction when humans arrived on Madagascar around two thousand years ago; almost twenty species are already gone. For Durrell (The Aye-Aye and I [1994]), lemuroidea are

"fabulous," quintessential victims of human carelessness; they are quest objects--to capture, breed, and rescue. For Wright (For Love of Lemurs [2016]), they are "sacred" in themselves and as a focal point for habitat protection in a land ravaged by logging and swidden agriculture. Jolly, one of the first Western scientists to study lemurs in situ, depicts them in Lords and Lemurs (2004) as ahistorical representatives of cyclical time, whose existence unfolds in counterpoint to human history. These works resemble pastoral elegy in their tirades about death ("extinction"); expressions of grief; struggles to assign blame; and delight in the lemurs themselves. Like the generic pastoral elegy, these works end with hope—part of the motive force which kept Jolly and Durrell passionately involved, and continues to propel Wright forward.

Workshop Session 3: "SLSA Creative Writers Read 1: Fiction and Poetry Out of Time"
The Virginia G. Piper Center for Creative Writing

In this creative session, poets and fiction-writers, including a graphic novelist, will read from their work and discuss their artistic aims in relation to the conference theme, "Out of Time." As writers and scholars, we will consider how pain can affect the perception of time; how dementia can affect the experience of time for patients and caregivers; how timing can motivate an isolated person to act to help others; how the human body can inspire mathematical and poetic thinking; and how biological scale is related to poetic form. Writers and readers of fiction, poetry, and creative non-fiction are welcome to attend and join in the discussion.

Presentations:
Pain in the Neck: **A Graphic Memoir**
Jenni Lieberman (University of North Florida; j.lieberman@unf.edu)

"You're probably familiar with the phrase. Perhaps someone's called you it before. Phrases like pain in the neck are so common that they seem to have a shared meaning..."
For this creative writing panel, I will share excerpts from my graphic-memoir-in-progress, "Pain in the Neck." This creative nonfiction project draws on recent multidisciplinary work in the field of Graphic Medicine in order to tell a part-personal and part-scientific story about chronic pain. In keeping with SLSA's conference theme, I will read the section of this manuscript that discusses how the experience of intense pain warps one's sense of time, transforming simple tasks like preparing food, attempting to sleep, or (most excruciatingly) going to a doctor's office into tormenting experiences, while it transforms the pleasures of a hot bath or a massage into impossibly fleeting moments of reprieve. I will frame my reading with an explanation of the importance of writing in the graphic medium: one of the most difficult aspects of living in extreme pain is its invisibility. Healthy-seeming people who suffer are regularly shamed for being dramatic or lying about their symptoms. Representing unseeable nerve pain in a graphic form is a reparative, healing process: it demonstrates how salubrious the relationship between medical science and art can be.

Maybe the Mermaids
Rita Ciresi (University of South Florida; rciresi@hotmail.com)

"Maybe the Mermaids" is a brief short story that explores how the past and the present collide in the mind of a former physician who is diagnosed with early onset Alzheimer's disease. Dr. Len Allen stands outside "normal time," and it is up to his wife and caregiver to make the difficult decision to commit him to an assisted-living facility.
 "Maybe the Mermaids," was a finalist for the Aesthetica International Creative Writing Award and a *Creative Loafing* fiction contest winner. It is one of many stories and novels I have written that illustrate how illness and disability force us to rethink our relationships to ourselves and others, as well as our relationships to the past, present, and future. My publications include the novels *Bring Back My Body to Me*, *Pink Slip, Blue Italian*, and *Remind Me Again Why I Married You*, and two award-winning story collections, *Sometimes I Dream in Italian* and *Mother Rocket*.

***Clean*: A Story of Trauma and Human Trafficking**
Laura Otis (Emory University; lotis@emory.edu)

In this SLSA creative writing session, I will read from my novella in progress, *Clean*, which tells the story of a Texas chain motel housekeeper who discovers her motel is being used by human traffickers transporting enslaved Vietnamese girls. Abused in her youth, the protagonist Ginny has trouble forming relationships with people and lives an isolated life. She devotes her love to the rooms she cleans, trying to protect them from the people who hurt them. She avoids thinking about the horrors she faced growing up, but when she comes upon an escaped girl who needs help, Ginny is out of time in every sense. Despite her difficulty dealing with people, she has to act, even though it puts her in terrible danger.

Pluripotent
Amanda Niehaus (University of Queensland; a.niehaus@uq.edu.au)

In this session, I will read my essay "Pluripotent," which explores my experiences with breast cancer, pregnancy, and the academic career track in the context of stem cells. During embryonic development, most stem cells differentiate into particular cell types like nerve, skin, or heart, and keep these forms until they die; others remain unspecialized, retaining their ability to transform, repair, or renew tissues throughout the body's lifetime. The essay considers the role of stem cells in fetal and mammary development, amphibian metamorphosis, and cancer to ask: how fixed is the pathway of my life? This essay was published in the July 2017 "Adaptation" issue of *Creative Nonfiction*.

Friday, November 10, 2017, Session 4: 11:00 AM – 12:30 PM

4A "Infrastructural Time: Dispossession, Futurity, and the Politics of Development"
       MU236 Mohave   **Chair: Anirban Gupta-Nigam**

The papers in this panel reflect on the politics of development by tracking the energy industries of coal, solar, and natural gas in India and the United States. Foregrounding questions of

dispossession, (visual) resource management, and securitization, the papers put pressure on how each energy source is discursively positioned within its respective national context—as well as the futures these imaginaries foreclose. We argue that infrastructures, like the legal apparatuses of states and technologically mediated governmental or corporate modes of seeing, are critical to how the problem of development is framed in each of the contexts under consideration. In India, the coal industry leverages environmental law as a technology for dispossessing local fishing communities of their livelihoods. In the United States, the Bureau of Land Management's aesthetic vocabulary produces visual subjects whose future-orientation authorizes contentious projects like the Ivanpah Solar Electric Generating System. Corporations like the Southern California Gas Company, on the other hand, develop modes of address that justify the intensification of subsurface natural gas storage in the name of progress and prosperity. In each case, development names an abstraction gathered under the heading of something like "the good life" for which specific populations—fishing communities, indigenous peoples, and the working poor—are asked to sacrifice themselves. The papers in this panel are, therefore, interested in disentangling the logics by which infrastructures and ideologies of development invoke futures where the contemporary—as a site of struggle and contestation—recedes from one's field of vision.

The Environment and the Emergency: Coal, Land, and the Politics of Dispossession in India
Kumar, Mukul (University of California, Berkeley; mukul.kumar@berkeley.edu)

This paper examines the ways in which environmental law is implicated in processes of dispossession. Environmental law, a relatively recent sphere of jurisprudence in India, emerged during the 1970s during a period of violent authoritarian rule known as the Emergency. Drawing upon eighteen months of archival and ethnographic research in south India, the paper tracks how the coal industry draws upon technologies of environmental law in order to dispossess artisanal fishing communities of their lands and livelihoods. I argue that environmental law has become an increasingly important site around which contestations over coal and land take place. By tracking such contestations, the paper demonstrates that environmental law constitutes a site of political struggle that both enables and limits often-violent processes of dispossession.

Renewable Infrastructures and the Politics of Futurity: Visual Resource Management and Developmental Time in the U.S. Post-2009
Goebel, James (University of California, Irvine; jgoebel@uci.edu)

In 1976, the U.S. Bureau of Land Management (BLM) formalized its role in managing the "visual resources" of public land with the objective to preserve its scenic value and "assure for all Americans aesthetically pleasing surroundings." Important to this function is the agency's Visual Resource Management (VRM) system, which includes a two-step process in which BLM managers work with project developers to (1) inventory the visual resource values of an area and (2) to determine—using the basic design elements of form, line, color, and texture—whether a proposed project's features contrast too sharply with the existing landscape. As the BLM states, "Projects that repeat these design elements are usually in harmony with their surroundings; those that don't create contrast." Central to this process are aesthetic definitions of form, line, color, and texture; suggested aesthetic vocabularies to assist BLM managers and developers in the

process of inventory and analysis; and the production of "visual simulations." This presentation asserts that visual resource management, especially in relation to the history of public land development, has simultaneously been the development of an infrastructure of visuality, of the logics structuring how one is to see development. As this visuality has depended on the production of visual simulations, I look to such images used in a 2010 Biological Mitigation Proposal for the 4,000 acre Ivanpah Solar Electric Generating System on the border of California and Nevada. My purpose is to inquire after how these simulations construct and assume the modal and temporal structure of the future anterior perspective, binding the viewer to future moral judgments of what will have come by structuring their sight in the present.

Event/Quasi-event: Slow Violence, Gas Leaks, and the Rhetoric of Security
Gupta-Nigam, Anirban (University of California, Irvine; aguptani@uci.edu)

After the catastrophic methane leak from the Aliso Canyon natural gas storage facility in 2015, the Southern California Gas Company (SoCal Gas) uploaded several videos on its YouTube channel which—without explicitly stating it—attempted to do some "damage control" and reassure the public about the inherent safety of natural gas as an energy source. In this paper, I focus on two of these videos, titled How Underground Natural Gas Storage Works and Aliso Canyon: Infrastructure, Technology, and Safety Enhancements, to provide an account of how underground infrastructures blend into the everyday, and the rhetorical strategies by which they are "secured" for the public at large. The first video discusses the process by which natural gas is stored underground, while the second speaks more directly to the importance of Aliso Canyon as an energy source for the residents of Southern California. The paper explores how these videos invoke the subsurface simultaneously as a controlled environment for human intervention, and as an environment where natural gas has been stored organically for millions of years. Through a close reading of the videos, I argue that the rhetoric of security deployed in them is premised on offering customers and critics alike protection from further catastrophic leaks or environmental disasters. What the close connection between security and catastrophe elides or suppresses, however, is the non-eventful nature of everyday toxicity that subsumes the environmental surround. The paper draws on anthropologist Elizabeth Povinelli's account of quasi-events to argue that narratives like SoCal Gas' intentionally overlook the problem of everyday gas leaks which, though catastrophic in scale, proliferate gradually below the realm of ordinary perception, affecting populations already considered disposable.

4B "The Time(s) of Life, Temporalities of the Living and Non-Living, I: Geontology, Biopolitics, Governmentality" Papers from the Society for the Study of Biopolitical Futures
MU228 Cochise   Chairs: Ingrid Diran and Antoine Traisnel

This panel proposes to reflect on biopolitics' relevance, in the logical and temporal senses of the term, at the moment when the destinies of the living reveal themselves critically contingent on those of the nonliving. In *Geontologies*, Elizabeth A. Povinelli suggests that biopolitics has run its course as an analytic of power in late liberalism and needs to be supplemented by what she calls "geontopower," a formation of power that presumes and enforces a strict differentiation, not between life and death (*bios* and *thanatos*), but Life and Nonlife (*bios* and *geos*). If only because biopower is entirely subtended by geontopower, Povinelli cautions, geontology is not simply meant to replace biopolitics but rather to mark that, under the influence of recent phenomena such as climate change and mass extinction, which take us "to a time before the life and death of

individuals and species," the self-evidence of the distinction between Life and Nonlife has started to crumble, or at least tremble. This self-evidence might have been the bedrock of Western biopolitics, Povinelli insists, but it never appeared as such to the populations most directly affected by settler late liberalism. Thus a critique of biopolitics necessarily entails a critique of geontopower, in which the concept of "earth" or even, of "ecology" as something like a metabolism between Life and Nonlife, is grasped as the threshold of governmentality. This panel considers what significance biopolitical critique retains, loses, or acquires upon a political horizon defined by the non-living, the mineral, and the metereological.

(Non) Life of the Neoliberal Market: Between Biopolitics and Political Theology
Medovoi, Leerom (University of Arizona; medovoi@email.arizona.edu)

In this paper I consider the production of neoliberal subjects and populations in their relationship to the ambiguous life/nonlife of the market. As an abstraction grounded in the promise of investments in the future, the neoliberal understanding of the market (and the so-called "entrepreneurial subject") is suspended somewhere between a biopolitical management of populations and a convenantal theology of faith in the providential future. The calculation of a profitable future based on ROI (return on investment) produces in the neoliberal subject a relationship to temporality that is grounded in a biopolitical promise of the predictability of natural laws, whether they apply to living or non-living phenomenon. But at a deeper level, this expectation that predictive capacity is adequate to the management of risk vacillates between the twin theological futurities of providential and apocalyptic promise. These are logics where the distinction between life and non-life (and also religious and secular modalities) break down even as the purpose of the political persists.

Receptivity, Immigration, Biopolitics
Ty, Michelle (Clemson University; mty@clemson.edu)

This paper takes as a point of departure a linguistic recurrence that illuminates affinities between psychoanalytic conceptions of psychic fortification and contemporary strategies for re-framing immigration in terms of critical projects of national defense. During the current refugee crisis, concern has been raised in Germany, among other nations of the global north, that the limits of "our" receptive capacity [*Aufnahmefähigkeit*] have been reached. Writing in the twenties, Freud uses the same term in his account of the formation of (psychic) interiority as a bounded locus of receptivity. Psychoanalytic and political theory have supplied a robust vocabulary with which to speak of the analytics of defense and the different responses that may be undertaken by the ego/nation, when confronted by "economic disturbances" (Freud's term). Aggression and disavowal, for instance, have correlates in governmental practices, such as the militarization of borders and the various forms of legal exclusion that deny recognition to the foreigner within. This paper seeks to give consideration to receptivity as essential to understanding governmentality--and not merely as a backdrop for psychic and political contestation. What, quite apart from a Schmittian agonism between friend and enemy, may be at work in the specification of a receptive capacity—an articulation of what can be imagined to be absorbed? Why does receptivity appear temporally as a retroprojection of closed (psychic) territory? The paper proposes a connection between contemporary anti-immigrant discourses

and biopolitical practices advanced by colonization, particularly the assessment of the "carrying capacity" of the land for sustaining nonhuman populations.

The Secret Life of Norms
Diran, Ingrid and Antoine Traisnel (University of Michigan; antoinetraisnel@gmail.com)

In his influential 2009 essay "The Climate of History," Dipesh Chakrabarty asserts that "theories of globalization, Marxist analysis of capital, subaltern studies, and postcolonial criticism over the last twenty-five years" fail to account adequately for the realities of climate change insofar as the latter erodes the distinction between geological and human time. In this paper, we argue that the apparent crisis of Marxist thought to which Chakrabarty attests is itself symptomatic of a larger threat that the Anthropocene poses to traditional thought: the extinction of a critique of historical time as such. Even the timely and necessary proposals to rename Anthropocene as Capitalocene are, we argue, implied in this trend, since they unproblematically retain the temporal concept of an internally continuous "cene" (literally, a newness) even as they supplant its content. In this paper, we ask to what extent climate change destabilizes the distinction not only between human and non-human histories, but also the conceptual conditions for imagining time as a continuous duration befalling the living and non-living alike (whether the latter is defined as inorganic matter or abstract substance, including the value form). Heeding Amitav Ghosh's suggestion that the temporality informing terms like "anthropocene" or "capitalocene" assumes a probabilistic universe, and that the idea of such a universe has been perfected not just in the hard sciences but in the imaginative laboratory of the modern novel, we turn to an alternative literary genealogy, one crystallized for us in the parabolic narratives of Nathanial Hawthorne and Octavia Butler, to test not only the viability of a normative universe, but its very desirability.

Farming by the Pull of the Moon
François, Anne-Lise (University of California, Berkeley; afrancoi@berkeley.edu)

Recent work on the Anthropocene such as Andreas Malm's *Fossil Capital* has focused on the ways in which petrocultures and extraction economies have "messed" with our relationship to the sun: if scientists are now proclaiming the end of seasonality, it's in part because, as Malm and E.A. Wrigley before him have argued, with fossil fuel extraction capitalism no longer depends on the "yield of present photosynthesis" (as earlier forms of agriculture did) but avails itself of the millennia of solar years stored in coal and oil. This paper takes as a starting point the idea that in this time of accelerated climate disruption and intensified seasonal instability what hasn't changed is the lunar cycle and the mini-monthly seasons determined by the moon's rotation around the earth. In a related essay I have examined lyric's and technology's power to expand and compress, accelerate or distort circadian rhythms in terms of the *sun* and solar years, but in this paper I turn to the other, more shadowy, secondary but no less structuring—governing measure of time—the moon. After examining the resurgence of attention to the gravitational patterns of celestial bodies in biodynamic farming and contemporary astrology, I finish with a reading of the lines concerning the "rosy-fingered moon" in Sappho's Fragment 96.

4C "Not Out of Time: More Whitehead!" *MU240 Navajo*   **Chair: Steven Meyer**

Increasingly, time looks to be Whiteheadian. Such is the shared premise of this panel's speakers – not necessarily in the same way or with identical emphasis. Passage (duration, transition); atomistic occasions (cell theory, concrescence); stability; real alternatives. Whitehead permits different emphases because time as he understood it, like so much else, is heterogeneous. *It possesses more than one dimension*. Whitehead's dissenting student W. V. O. Quine may have opined for what he called a "desert ontology," a stance recently and properly countered by the "rain forest ontology" of philosopher of science W. C. Wimsatt. Yet for the Whiteheadian scholar of Chinese philosophy and religion, David L. Hall, "the dry and deceptively inert desert [of the Southwest that] he loved so much," as his collaborator Roger T. Ames put it, always already required a rain forest ontology like Wimsatt's – and like Whitehead's. In James J. Bono's alternative genealogy of temporality, in Joan Richardson's conjunction of the passage of time and perception in the mode of causal efficacy, in Andrew Thomas Dunn's account of the neuroscience of anticipation, in Steven Meyer's multiple contrasts between Whitehead and Deleuze, and James and Bergson, and in "the glimmer of a shape for questions" that the four papers provoke in Thomas Lamarre – we hope to sample a range of the Whiteheadian temporalities experienced among human and nonhuman inhabitants of Tempe rather than just another despairing play on *tempus fugit*!

Making Time, Together: Repetition and Duration in Whitehead's Organic Philosophy, the Passage of Nature, and Biological Time
Bono, James J. (University at Buffalo, The State University of New York; hischaos@buffalo.edu)

At the root of Whitehead's challenge to Western understanding of living and non-living things is his rearticulation of the "problem of nature" posed by the reigning ontology enshrined at the dawn of modern science. Opposing its defining gambit – seeing the world as "a succession of instantaneous configurations of matter" – his philosophy of organism contrasts the "thinness" of the "instantaneous" foundational to mathematical physics and the abstraction of mechanistic materialism, to the "thickness" and "duration" of the "simultaneous." For Whitehead, a "duration retains within itself the passage of nature." This contrast undercuts the presupposition of an ontology of individual (independent) substances with its "fallacy of simple location." In its place, Whitehead insists that nature is always moving on, always passing, in process of becoming. Fundamental, then, to the "organic philosophy" is the "notion of repetition," which captures the simultaneity of the process of becoming – of becoming real – as one marked by the temporality and "togetherness" of the actual and the potential and thus the making of "an organic extensive community" that "is always passing beyond itself." In contrast to early modern mechanism, I shall trace an alternative genealogy of temporality – from Paracelsus to Darwin – shifting attention to biological duration.

Time, the Passage of Nature
Richardson, Joan (The Graduate Center, CUNY; Jtrichardson@aol.com)

At last year's conference I noted Whitehead's description of time as, in his words, "the passage of nature" and offered some examples of how our sense of being, of existence, would change if instead of the word "time" we used the phrase "passage of nature": "What passage of nature is it?" "It's been a long passage of nature since we've spoken." Of course, our attention would be

drawn in these instances to the process of reality, to where we are or were and to what we are/were doing during that onflowing passage; this engagement would be in sharp contrast to thinking of an instant, a punctum, a still point that might be plotted on a graph representing our experience. The examples I've used above are trivial, but if we conceptualize more complex situations, what is at stake in substituting "the passage of nature" for "time" shows itself to add dimensions to how we imagine ourselves and our relationship to the universe. Simply put, this phrasal substitution for "time" in Whitehead's vocabulary facilitates participation in one of the core aspects of his speculative realism, that is "perception in the mode of causal efficacy," or – as Steven Shaviro offers – "the 'vague' (nonrepresentational) way that entities affect and are affected by one another through a process of vector transmission (*PR*, 120 ff.)" (*The Universe of Things* 28). My talk will fill in some of the details sketched here.

The Present Past and the Probable: Process Philosophy, Implicit Learning, and Delimited Appetition
Dunn, Andrew Thomas (The Graduate Center, CUNY; adunn@gradcenter.cuny.edu)

Contemporary cognitive science and the philosophy of organism (outlined by Whitehead in *Process and Reality*) share a basic understanding of consciousness – both view it as the end result of complex processes that are largely inaccessible to conscious introspection; both see cognition generally as a fundamental emergent property of organism; and both offer models of increasingly restricted awareness that emphasize the limitations of consciousness and the progressive integration of somatic markers with mental feelings in nonconscious cognitive structures. In part, this paper explores these alignments in detail, mapping Whitehead's Categoreal Scheme – the categories of existence and explanation, and their consequent Categoreal Obligations, in which importance, perspective, understanding, and expression act as ongoing principles of intelligibility – onto neural structures recently described by Karl Pribram, Antonio Damasio, and Jean Matter Mandler that address key aspects of conscious experience. Furthermore, building on these correspondences, I also suggest that neural mechanisms of implicit/tacit learning (identified by Paul Churchland and Arthur S. Reber) can fruitfully expand on Whitehead's claim that knowledge resides in the intermediate phases of concrescence. More specifically, I argue that tacit learning, in which the brain creates abstract feature maps and integrated neural pathways that model both past experience and expectations of the probable, provides a developmental basis for Whitehead's Categoreal Scheme. Implicit learning provides individuals with a stable sense of the physical world; however, by structuring subsequent stages of experience, and by delimiting both appetitions and propositions, these core neurological models also shape what we think to be possible.

Alternate Pluralisms: Learning to Distinguish Whitehead's Jamesian Modernist Account of Time from Deleuze's Transcendental Empiricist Account
Meyer, Steven (Washington University; sjmeyer@wustl.edu)

Both Whitehead and Deleuze expanded traditionally rigid empiricism (Latour's "first empiricism") in speculative, robust fashion (producing variants of "second empiricism"). Both ended up with profoundly pluralistic descriptions of temporality. Yet theirs are by no means equivalent descriptions. In this talk I will contrast the richly Bergsonian account of time provided by Deleuze in his *Cinema* volumes (especially the second one) and the richly Jamesian account

that Whitehead had provided half a century earlier in *Process and Reality* and related works. Although there is a great deal of overlap among the four figures (James, Bergson, Whitehead, Deleuze), I will argue that in order to get an adequate handle on the thematics of the present conference it is essential to distinguish the James-Whitehead lineage from the Bergson-Deleuze one. In conclusion, I turn to Omri Moses's fine study *Out of Character: Modernism, Vitalism, Psychic Life* (2014) and examine Moses's Bergson-inflected description of Gertrude Stein's compositional practices, along with his attendant criticism of the James-inflected description I provided a dozen years earlier in *Irresistible Dictation: Gertrude Stein and the Correlations of Writing and Science* (2001), to suggest how the Bergson/James contrast plays out in terms of the Deleuze/Whitehead contrast considered here.

The Glimmer of a Shape for Questions
Lamarre, Thomas (McGill University; thomas.lamarre@mcgill.ca)

Translator of monographs on Gilbert Simondon and William James, by Muriel Combes and David Lapoujade respectively, and author of numerous essays on the impact of James, Simondon, and Whitehead on social theory and media theory, Tom Lamarre will serve as discussant to the preceding papers.

4D "Queering Media" *MU242A Lapaz West*   **Chair: James Malazita**

Critical Platform Studies: Queer and Anti-Queer Ontologies in Game Development Software
Malazita, James (Rensselaer Polytechnic Institute; malazj@rpi.edu)

Game engine software is now widely used as a simulation and assessment tool in military, governmental, and scientific organizations. While humanities and Science and Technology Studies scholarship has long examined how political problems are understood "with and through" a host of texts and technologies, there is little work investigating how computational media frame political action through gaming platforms, and how queer ontologies and subjectivities are impacted via their translation into these platforms. Perhaps surprising to those outside of media activist spaces, explicitly queer game projects are being developed by a host of persons and institutions; however, the specific ways in which game engines—the software environments that underpin digital game design—enact practices of "being in the world" can serve to undermine the radical potential of these projects. Through a "Critical Platform Studies" analysis, this talk will trace the design of BioShock Infinite, a triple-A commercial game with queer aspirations that was developed using the Unreal Engine. I will show how these queer aspirations were compromised due in part to the labor conditions of commercial game development, Unreal's historical ties with the military-entertainment complex, and the taxonomic nature of object-oriented programming embedded within new media and game development software. I will then examine how another game engine, Twine, attempts to subvert the object-oriented conventions of new media, and thus provides a unique platform for digital queer narratives.

From Subject to Subject Matter at the Intersection of Transgender Studies and Archival Studies
Apple, Harrison (happle@email.arizona.edu)

The growth of Transgender Studies since the 1990s has inspired the creation of peer reviewed journals, academic programs, and international conferences where scholars articulate reimaginings of the body and environment to an ever-widening audience across academic homes. From the perspective of Information and Library Science, the excitement materializing around Transgender Studies has stimulated the conception, growth, and continued support of multiple "transgender archives." However, the attention to "transgender archives" has not drawn much from within the field of Archival Studies itself, a recurring unbalanced tradition of interdisciplinary scholarship recognized by Michelle Caswell in her essay "'The Archive' is not an Archives." I argue that a central tension in the project of the "transgender archive" is a pre-existing uneasiness with which scholars and activists have engaged with "transgender" as a category, and that it has not been ameliorated by the institutionalization of "transgender studies." I offer that this tension is being worked out at the most base level of the archives, "the record," through the archival tradition of Diplomatics. Critically reading the Digital Transgender Archives (organized by K.J. Rawson) and my own archival endeavor, the Pittsburgh Queer History Project, I argue that close study of archival practice with "transgender" documents forces us to reevaluate the temporal framework of transgender archival studies. This reevaluation takes the project of "transgender archive" as the site of "record creation," demonstrating how "transgender" acts as an organizing principle on the archives, rather than as a subjectivity in the archives, waiting to be discovered.

A Game is a Diffractive Apparatus: Metagaming Youtube and Tool-Assisted Subversions
Holowka, Eileen (Concordia University; eileenholowka@gmail.com)
Walker, Cody (Concordia University; codylwalker@gmail.com)

There exists a radical potential in bringing together remix and game worlds: the capacity to stage an encounter between the human and nonhuman. Videogames are often encountered as video (as streams on twitch.tv, videos on youtube, or as machinima). Thus, one can ask: if videos can be remixed, what does a game remix look like? Meta-gaming practices, such as Tool-assisted speedrunning (TAS) make legible the micro-temporal processes of game worlds through save states, game speed manipulation and instant replays. This material practice is similar to that of video remix, as Martin Irvine writes, remix is a generative process that "encode[s] and externalize[s] future-projecting collective memory in structures of meaning" (30). For those who wish to explore the generative potential of games and remix, one is always at the mercy of the platforms these media are embedded in. Our paper articulates a feminist, posthumanist approach to performativity in, around, and through games. We articulate a research method that asks questions to, through, and with games; a method of remixing both games and video as a way of sharing experiences and developing common references. We describe the problem of representation (Alexander Galloway) and representationalism (Karen Bared) in the relation between content, form, apparatus and performance through reference to the breakdown of two fictional apparatuses: the universal translator in Star Trek: The Next Generation ("Darmok", 1991), and the mirror gem in Steven Universe ("Mirror Gem - Part 1", 2014). Building on Ian Bogost's formulation of the Darmok language as strategy (rather than image or metaphor), we

discuss the procedural rhetoric of game-based artificial intelligence in RTS games in relation to nonhuman cognition as a "process of interpreting information in contexts that connect it with meaning" ("Unthought", Hayles). Moreover, we use Steven Universe's mirror gem as a figure of diffractive agency, and postdigital aesthetics.

4E "Cellular Performances and Temporalities" *MU242B Lapaz East*
      Chair: Jennifer Johung

Cancer shapes us on multiple evolutionary time scales: It has been with us since the origins of multicellularity and evolves anew in each individual
Aktipis, Athena (Department of Psychology, Arizona State University; aktipis@asu.edu)
Maley, Carlo (School of Life Sciences and Biodesign Institute, Arizona State University; maley@asu.edu)

The story of cancer goes back to the origins of multicellularity, yet it also evolves anew in every individual. Our susceptibility to cancer can therefore only be understood by considering these multiple time scales of evolution: how we, as multicellular organisms, have evolved to suppress cancer and how cancer evolves within the lifetime of an individual. These time scales of evolution interact. Cancer is the result of evolution among cells in our bodies, with those cells that can best survive and divide outcompeting normal cells, a process known as somatic evolution. Multicellular organisms that can best suppress this evolution among the cells in their bodies have an evolutionary advantage over multicellular organisms who do not suppress somatic evolution as well. In other words, our bodies have evolved, over millions of years, to suppress the evolutionary processes going on among cells during our lifetimes (i.e., somatic evolution). Our susceptibility to cancer is part of the legacy of multicellularity, but so is our capacity to suppress cancer. Because of evolution we have the ability to live long lives despite cells within our bodies constantly mutating and evolving. Considering these multiple time scales of cancer evolution leads to novel strategies for cancer prevention and treatment. In particular, it suggests that we should attempt to slow somatic evolution to prevent cancer and also to slow progression. This strategy could enable patients to live longer, dying with slow-growing tumors rather than dying of cancer.

Pluripotent Temporalities and the Performance of Stem Cells
Johung, Jennifer (University of Wisconsin, Milwaukee; jnjohung@gmail.com)

A functioning neural network sustained in a custom-built cell-culturing lab and housed in a large sculptural object, fires electro-physical impulses in response to sounds produced by live musicians. In Guy Ben-Ary's new performance installation Cellf, these neurons were derived by reverse-engineering the embryonic stem cell state of pluripotency in his own skin cells then re-differentiating them down a neural pathway. With the advent of induced pluripotent stem (iPS) cell technologies, we can now turn back time and retroactively attain this state of pure potentiality in any adult cell, which means that skins cells can become brain cells that multiply and perform outside of Ben-Ary's body. So Ben-Ary, or rather parts of him, are re-embodied across another temporal (and indeed musical) scale. This paper addresses developments in regenerative medicine that reverse and advance living matter to and from an embryonic state.

Embryonic stem cell lines suspend and expand the possibility of endless plasticity of form and function in convoluted temporalities that conflate past with future. Bringing the lab into the gallery, art practices like Ben-Ary's are able to offer this temporal conflation materialized in and as action, in circumstances where there is no need for practical disease modeling or treatment plan, while making legible the various infrastructures and conditions necessary to suspend the linear movement of time. Indeed, Ben-Ary's performance installation answers not to regenerative medicine's controlled directives of future healing, but instead calls attention to material and immaterial dependencies from cells to embodied environments that arise when life is endlessly renewed within the variable conditions of plastic time.

Attending to Time: Temporal Attention and the History of Embryo Staging
DiCaglio, Sara (Texas A&M University; sara.dicaglio@gmail.com)

Elizabeth Grosz (1995) argues that "representations of space have always had—and continue to have—a priority over representations of time" (96). Indeed, the conflation of space and time that Grosz highlights has been particularly consequential for the study of biological development. Looking specifically at the visual and textual history of the Carnegie Institute's Department of Embryology's systematization of embryo stages of development, I argue that twentieth and twenty-first century definitions of development have come to neglect process and time in exchange for a focus on product and space. The most tangible result of this exchange is the assumption that all embryos will develop into live-born babies, and that any pregnancy that does not end this way is an anomaly—in other words, the erasure of miscarriages and stillbirths from the range of normal pregnancy outcomes. In making this argument, I introduce the concept of *temporal attention*, which I define as attention to the lively possibilities of living matter—to what may be actually occurring, about to occur, or able to occur, rather than attention to what we think will occur. The key word within this term is that of "attention," as what I am calling for is a kind of careful watching, observing, and living with that does the best it can to resist anticipation and prescriptive thinking.

4F "Antennae Roundtable: A Decade of Art and the Non-Human" *MU246 Coconino*
      Chair: Giovanni Aloi

Antennae: The Journal of Nature in Visual Culture is now ten years old. Since 2007, it has been a healthily skeptical publication charged with a critical irreverence devised to respectfully challenge and provoke change. The journal today stands as a faithful record of the many debates, arguments, and cultural shifts that have characterized the cutting edge in recent explorations of human/non-human relations through art, science, and philosophy. This roundtable centers around *Antennae*'s longstanding approach to contemporary art and the non-human. It includes selected key scholars and artists who have been published in the journal and whose contribution to the field has been of defining importance. The main aim is to map notions of originality, innovation, and ethicality that surpass the current animal-studies epistemological boundaries in order to propose new methodologies capable of addressing the complexities entailed in human-non-human relationships in the Anthropocene.

Participants:
Giovanni Aloi
Ron Broglio

Kathy High
Kira O'Reilly
Susan McHugh
Cary Wolfe

4G "Game Studies 2: Runtimes" *MU238 Apache*   **Chair: Timothy Welsh**

The second critical game studies panel examines ludic difficulty and the diverse levels of game time, including computational runtime, player time, narrative time, and replay.

Time and Dark Souls
Welsh, Timothy (Loyola New Orleans; tim.j.welsh@gmail.com)

A great deal of the discussion surrounding From Software's Dark Souls (2011) is occupied with the game's notorious difficulty. For many game critics, Dark Souls recalls a generation of console games, offering a challenge that has been harder to find following the "casual revolution" (Juul). Daniel Vella has argued that the game's difficulty helps to conjure a sense of the "ludic sublime," adding to what he calls the "mystery" of the game's lore and systems that resist the player's quest for mastery. By now, though, Dark Souls is an old game. Much of it's initial mystery has eroded as numerable players complete the game and share tips with one another on online message boards and videohosting channels. Dark Souls has even become a popular game for speed run competitions, in which players attempt to complete the game in as little time as possible. This paper will consider the relationship of difficulty and time in Dark Souls. Approaching difficulty through the perspective of time shifts the focus from game as organizing structure to narrative. I will outline the overlapping time-streams the game maintains, timestreams that occur within and across the fictional universe the game imagines. Doing so will reveal how the aesthetic experience of the game is a function of time and, as a result, must be understood as in correspondence with the player's lived experience. In conclusion, I trace how Dark Souls, with its notorious difficulty, situates its players within contemporary digital culture, pitting the quest for greater efficiency in the post-industrial economy against the desire for something like an authentic, sublime experience.

Dual Temporalities of Pseudocode: On the Broken Runtime of Pony Island
Russell, Jamal (UC Santa Barbara; jamalsrussell@umail.ucsb.edu)

At various points in Daniel Mullins's 2016 indie game Pony Island, the player must break from the side-scrolling action that constitutes the majority of one's gameplay, and solve programming puzzles to repair malfunctioning sections of Pony Island. These puzzles do not ask the player to work through proper code written in a programming language such as Python. Rather, they present the player with "pseudocode" written mostly in English that must be repaired and, when solved, step slowly through their execution before returning the player to the now functional game.
        While this works as a representation of code designed for human users that have only a limited understanding of code and software's processes, I argue that in order to do this, important aspects of the design and interoperations of actual programming languages must be eliminated entirely from Pony Island's depiction of code's workings. This is evident when one considers

how the function of a runtime system figures into the design of the game's pseudocode: the runtime system's function as the means by which code and software processes are managed for both human interfacing and machine interoperability is nonexistent in Pony Island. What the player receives instead is a representation of a simplified human-to-software interface that only accounts for a human-based understanding of these processes. This results in a simplified, one-sided articulation of how code and software work over time, one which eliminates from its model the runtime system that regulates their processes for both human and machine interpretation.

Violence and Fragmented Time in Multiplayer Gaming
Wirth, Ben (University of Washington; benwirth@gmail.com)

This paper is interested in seeking intersections between Nietzsche and Husserl's respective ideas of eternal recurrence and time-consciousness, and the experience of violence in multiplayer first-person games. I will consider how the reiterative nature of these games refracts the experience of violence, and if this distortion, enabled by its by-design eternal recurrence, can be understood temporally as a version of Husserl's living-present. If we experience this violence as a kind of living-present, how does this reflect into non-virtualized spaces? Of course, in the aftermath of the Columbine shooting, this violence was read as a scapegoat, in which the virtualized violence of video games served as inspiration and mirror for real-world atrocities. While this position is a dated understanding of intentionality, I want to return to this belief and antagonize it to think of how these virtualized spaces of violence, through their recurrences and living-present-ness, create a kind of phenomenological violence which, instead of simply being an outlet of fantasy or desire, are a version of what Žižek calls the "imaginary real," something that places us in a closer relationship with our most intimate fears. This violence can then be read not as a kind of ritualized fantasy of masculine power/domination, but an effect of the flood of violence experienced and consumed non-materially. I am primarily interested in how these ideas function in America's Army (through its distortion of perspective) and the Counter-Strike series (through its distortion of time), which map, if not intentionally, to our ways of understanding this American violence in the 21st century.

'A Name Burns Itself into My Mind': Narrating Time, Prescribed Pathways, and the Problem of Futility in No Man's Sky
Carpenter, Justin (University of Waterloo; j2carpen@uwaterloo.ca)

Hello Games's No Man's Sky is a temporal anomaly, operating in and over time indefinitely. This situates the game in a long genealogy of "playful" texts which extend their "narrating" time infinitely. Julio Cortazar's Hopscotch and Jorge Luis Borges's The Library of Babel are recursive and generative, presenting potentialities which the reader then constrains through their particular experiences and paths they carve through each text. By creating an expansive and looping "narrative," No Man's Sky also develops an immense script of possible combinations. This "narrating" time is impossibly long and occurs simultaneously with the player's lived experience. Although the game is deformed by every player, these spaces are generated whether you personally discover them or not.

　　　　This inevitably leads to a discussion of No Man's Sky as futile. In Borges this futility exists throughout the library because most of the texts are indecipherable, entirely without constraint (outside of the "language" that comprises the seeded data, which generates all possible

combinations ad infinitum). No Man's Sky also lacks such constraint, leaving players without any purpose outside of accruing capital and reaching the center of the universe (which then reverts the player back to another random planet, a Sisyphean task that endlessly repeats). The ability to pursue anything in No Man's Sky ultimately makes nothing in the game worthwhile. Ultimately, a "metagaming" framework, in which in-game action is constrained by different types of player-imposed narrative, is the only way to navigate an indifferent and incomprehensible universe.

4H "Time-Criticality and Nineteenth-Century Media Studies" *MU229 Santa Cruz*
Chair: Andrew Burkett

The idea of media time, identified by Wolfgang Ernst as zeitkritik, or time-criticality, references the material infrastructure constructing our social experience of temporality. Among other things, history is a media effect made possible by the physical characteristics of objects measuring out and dividing standard and discrete units of time. The long nineteenth century is an important moment in the history of zeitkritik because the period corresponds to the standardization of industrial time, as factories arose in British and American towns and as rail stations connected them to a common set of moments. This SLSA panel explores zeitkritik through the variety of Enlightenment, Romantic, and Victorian technological forms and historical formulations that enabled an intensification of abstract time during the period. Such temporalities can be found in Charles Babbage's theories of industrial labor, measured by the mechanisms of oscillating escapement in clocks and compounded by his development of mechanical computation. We are equally interested in the period's development of scientific theories postulating temporal durations much deeper than the moments delineated in clocks and factories. Charles Darwin's studies of finches found time registered in evolutionary variation. James Hutton's and Charles Lyell's respective theories of deep time explored the stratification of rock sediment and saw time in the composite traces of slow geological accumulation. As we suggest, the imaginative reveries and philosophical reflections on the temporalities of the nineteenth century transformed literary and scientific writers into media theorists—whether or not they had access to what John Guillory has recently called the "media concept."

In the Time of Minerals: Digging for History in the Deep Enlightenment
Lake, Crystal B. (Wright State University; lake.crystal@gmail.com)

Crystal B. Lake opens this panel with her talk, "In the Time of Minerals: Digging for History in the Deep Enlightenment," which explores research conducted by members of the Royal Society—and its sister learned body, the Society of Antiquaries—on metal and metal objects. The discovery of ancient coins, weapons, jewelry, and other objects both everyday and also aesthetic, Lake argues, troubled conventional notions of time during the period. Her presentation pays particular attention to how early scientists, historians, and philosophers drew on emergent sciences of mineralogy, metallurgy, and crystallography as well as more ancient, mythical, and alchemical theories of elemental matter to explain their archaeological finds. In particular, Lake considers how Hesiod's metallic account of evolution, which remained popular thanks to its centrality in Lucretius's De Rerum Natura, offered a complicated chronological and philosophical framework for assessing the significance of historical metal. Lake concludes by considering how these early scientists, historians, and philosophers can deepen the recent work

of contemporary theorists such as Manuel DeLanda, Wolfgang Ernst, Friedrich Kittler, Jane Bennett, and Gilles Deleuze and Felix Guattari.

The Strange Temporalities of William Wordsworth and Charles Darwin
Burkett, Andrew (Union College; burketta@union.edu)

Continuing this panel with his talk, "The Strange Temporalities of William Wordsworth and Charles Darwin," Andrew Burkett explores disjointed, juxtaposed, and entangled Romantic media where literary and historical forms of periodization collide with gigantic and minute temporal durations that were either invented, experienced, discovered, or vaguely-hinted at during the period in both art and science. As a way to investigate the media conditions of Romantic cultural history, this presentation turns to various elaborations of media time and their impact on the period's historicity, paying particular attention to the complex and often strange temporalities staged in both William Wordsworth's The Prelude (1805) and Charles Darwin's Origin of Species (1859). In addition to the material conditions of media time elaborated by Ernst as zeitkritik, much German media theory provides a unique perspective on both Wordsworthian and Darwinian temporalities, enabling a more granular analysis of the various aesthetic and scientific mediations of the nineteenth century.

4I "Strange Signals: Timing, Humor, Scale and the New Communication Continuum"
MU227 Pinal   **Chair: Meredith Tromble**

Silico- and bio-technologies are creating new communication environments and new classes of robotic, semi-living, differently intelligent, embodied beings, at the same time they make perceptible signals from entities not previously considered communicative. This panel includes artists, researchers, and interdisciplinary collaboratories working with communication at the interface of different forms of embodiment, exploring factors such as scale, humor, and timing. The signaling circuits under discussion include those between humans and robots, humans and apes, robots and animals, and humans and microbiomes. Investigations are presented in context with questions about agency, creativity, and emergent intelligence rippling out from the presence of new agents in the social pool. Cognitive scientist Deborah Forster discusses Agent-RUBI, an interactiveand humorous robotic surveilling agent. Artist/roboticist Ian Ingram creates messy webs in the Umwelts of non-human animals and humans with robots that attempt to communicate and commune with animals in ways that human bodies preclude. Filmmaker Rachel Mayeri addresses her Primate Cinema's strategies for understanding the physical, emotional and social lives of nonhuman primates, including cinema for a multispecies ape audience and aping an ape through motion-controlled avatar. Art historian Charissa Terranova queries signaling among bacteria and human substance as part of a bacteria-based identity politics, looking to bioart to explore the protean nature of putative "self" in the micro-realm. As she discusses her work with interactive 3-D projections, artist and writer Meredith Tromble proposes a context for all the panel presentations in theories of complex adaptive systems and signal/boundary hierarchies.

A Cacophony of Signals: Woodpecker Sexbots, Squirrel NORAD, and Other Robotic Systems
Ingram, Ian (Pitzer College; ian@ianingram.org)

My work explores levels of communication and understanding in and between non-human animals and human observers. Each animal, including the human, experiences the world in a different way due to the particulars of its body, its senses, its adaptive programming, and every part of its make-up. This experiential whole has been dubbed the "umwelt" of a particular animal. Part of the umwelt is a sensitivity to particular signals. Ants are attuned to the chemical trails of their fellows, songbirds listen for the songs of their rivals, humans study others' facial expressions. The world is a cacophony of signals, most essentially invisible to us. Arguably, part of the human umwelt is the application of extra meaning and narrative, especially anthropomorphic narrative, on the activities of other animals that we do perceive. My recent work creates a messy web in the umwelts of specific non-human species and human beings with robotic systems that--in scale, form, and gesture--make signals truly meaningful to the non-human species but often in a playful human-like narrative context. The robots are trying to communicate with the animals and, in part, allow human communion with those animals in ways that our own bodies and umwelts don't allow. That human narrative stamps itself heavily onto the projects is confirmed by these becoming things like a hermaphroditic sexbot for Pileated Woodpeckers and a NORAD equivalent for Grey Squirrels.

Agent RUBI and the Robot Zoo
Forster, Deborah (Contextual Robotics Institute, University of California, San Diego; forstermobu@gmail.com)

Work in the field of social robotics is uncovering new aspects of interaction and communication among humans as part of answering questions about how robots can be integrated in human lives and social situations. In the course of my work with the Machine Perception Laboratory (MPL) and the Contextual Robotics Institute at the University of California, San Diego, I bring a cognitive science perspective to experiments intended to develop robots that adapt, evolve and create their own solutions based on the people and situations – the context – they encounter. The goal of the MPL is to develop systems that perceive and interact with humans in real time using natural communication channels. The lab develops perceptual primitives to detect and track human faces and to recognize facial expressions, and algorithms for robots that develop and learn to interact with people on their own. This work builds on previous studies of animal behavior such as a honeybee-based temporal difference algorithm developed by Peter Dayan and Reid Montague. In this talk I draw examples particularly from MPL's work with the RUBI project, which introduced a social robot into a preschool environment, before continuing to a discussion of current work with the Contextual Robotics Institute curating a 'robot zoo' — not robotic animals but a showcase of 'living' (working) robotic entities. Both settings provide rich examples of "absurd" or humorous interactions in which mismatches of timing, scale, or other dimensions trigger new research questions and insights about embodiment and communication.

Bacteriophiles Unite! The Protean Identity Politics of Bacteria within Bioart
Terranova, Charissa (University of Texas, Dallas; terranova@utdallas.edu)

This paper investigates signaling and the transformation of identity politics by way of biology within art, focusing in particular on the function of bacteria within contemporary bioart practices. Artist-scientists such as Anna Dumitriu, Eduardo Kac, and Gilberto Esparza and scientist-artist Simon Park use bacteria in art, revealing how self, sex, and speciation might be reconsidered

from a non-mammalian bacterial perspective. Such bacteria-based works do not only redefine the limits of form and process within contemporary art, but catalyze a rethinking of "life" itself. Horizontal gene transfer, symbiogenesis, and chimeric life forms within the realm of prokaryotic micro-organisms, or unicellular organisms without membrane-bound nuclei, aka "bacteria," generate new parameters for life, resulting in a sense of identity that is assembled and mutualist rather than singular and selfish. I argue that bacteria-based bioart opens spaces of dialogue beyond identity politics rooted in textual or cultural practices alone. Within bacteria-based bioart, identity actualizes at varying valences: biologically in terms of evolution according to the fundamental definitions of "life" as well as culturally at the level of gender and race. The goal of this presentation is not to move beyond an identity politics of culture, gender, and race but to build upon them: to expand the spectrum by which identity might be understood. I deploy "biology" politically and in terms of identity without falling into the age-old traps of eugenics and racism, but rather according to an emancipatory politics rooted in evolutionary development and scientific literacy.

Primate Cinema and Other Adventures in Interspecies Communication
Mayeri, Rachel (Harvey Mudd College; rachel.mayeri@gmail.com)

"Midway through Apes as Family, the television-style drama that Rachel Mayeri filmed for chimpanzees at the Edinburgh zoo, the artist can be glimpsed with her camera. We watch her watching the chimps as they watch her film — a clear "tell" that the work is about more than interspecies drama," wrote a critic for the French new-media journal MCD. In this paper, Mayeri discusses the interspecies signaling in her ongoing series, Primate Cinema, including Apes as Family and communications between apes and humans mediated by digital ape avatars. The works in Primate Cinema, based on research and often created in collaboration with primatologists, weave chimp and human curiosity together in unfamiliar and playful ways. Mayeri writes, "An intelligent, social species, chimps, like us, need to monitor each other in order to get along. Knowing another's status, mood, relationships, and sexual availability (Facebook basics) is important for social life. The compulsion to view others may be a basic instinct among apes, which underlies our interest in watching social dramas, whether live or recorded." Mayeri, who has expanded her exploration of interspecies signaling to the bacterial realm in her most recent work, concludes with a discussion of this work, turning to a comparison between the power of the Internet to hijack human attention and the power of signaling from the microbiome, which alters human behavior to benefit a protozoan.

Timing, Imagination, and Signaling Other Minds
Tromble, Meredith (San Francisco Art Institute; mtromble@sfai.edu)

In the course of a long-term artist residency in a complexity science laboratory, the author encountered scientist John Henry Holland's description of language as a complex adaptive system organized by signals and boundaries. His ideas provide a useful framework with which to analyze artists' works involving signaling among entities along a continuum of embodiment. Holland discusses widely differing agent-based signal/boundary systems, ranging from biological cells to governments, and claims they exhibit the same general features: semi-autonomous subsystems; hierarchical organization; sustained diversity, and extensive recycling of resources. Exploring the applicability of Holland's concepts across artworks ranging through a

similarly broad array of animate states generates different questions and insights than a traditional art historical or critical approach. This paper interprets the range of communicative assemblies by artists in this panel in light of Holland's work, beginning with the author's work in virtual interactive installation in collaboration with researchers at the Complexity Sciences Center and KeckCAVES at the University of California, Davis. Made with drawings projected in 3-D space, these works involve an active vortex of images that, mediated by a 3-D platform such as the Oculus Rift, can be "touched" and handled, as if they were physical objects. The semi-autonomous programming and dynamics of these works raise questions of signaling and timing that serve as probes to investigate similar issues as they arise in the robotics work of Deborah Forster and the artworks of Rachel Mayeri, Ian Ingram and the bioartists discussed by Charissa Terranova.

4J "Inhuman Lithographies" *MU226 Graham*   Chair: Paul Harris

Nothing is Written in Stone: A Deposition of Petric Poetics
Harris, Paul (Loyola Marymount; Paul.Harris@lmu.edu)

This talk carves out a *petric poetics*, cementing a breccia with tradition by cobbling together conglomerate texts in a speculative landscape between concrete poetry and land art. The verbicovisual pair petric/poetic serve as apposite indexical lexicals pointing to a terrain where words matter, where 'words matter' is more an axiomatic equivalence than a figure of speech. Petric poetic layered language marks the superficial upper crust in a geologic genealogy of lithic inscriptions comprising a stratigraphic archive, a rock record in which everything is written in stone. The presentation will explore temporal dimensions of petric poetics, especially its prioritizing a present moment pregnant with epiphanic potential, and its preference for pithy, proverbial prompts that really, readily proffer themselves to readers to play with, predicated on an inverse relation between brevity in form and length of duration demanded to read and reflect. Petric poetic experiments will be shown from Charles Jencks's *The Garden of Cosmic Speculation,* Ian Hamilton Finlay's *Little Sparta*, and *The Petriverse of Pierre Jardin*, a protean rock garden and outsider art environment where nothing is written in stone.

Geology, Myth, Media
Nocek, Adam (Arizona State; Adam.Nocek@asu.edu)

This talk argues for the relevance of mythical signification in our geological epoch. More than this, it contends that we need to revise our assumptions about media and communication systems in order to grasp the importance of myth in an era where the future of human and nonhuman life on the Earth is entirely uncertain. To make this case, I focus on the growing consensus in the sciences and theoretical humanities that mythical stories about geological and planetary processes cannot simply be disqualified or disregarded because they do not conform to the norms of modern scientific epistemology (e.g., Vitaliano; Masse et al.). Whether these stories come to us from pre-modern civilizations and attempt to give sense and meaning to geological events such as natural disasters, or they have more contemporary roots in neo-pagan activism and feminist healing practices (e.g. Stengers; Salomonsen; Keller), there is a mounting need to account for the important ways in which myth has and could facilitate meaningful engagements with the Earth's complex material transformations. There is little doubt that this urgency stems in large part from our shared anxiety over what is to come of the human species in our geological

epoch (e.g., Lee, Scranton, Thacker), and the attendant need to piece together knowledge about the Earth before the advent of sophisticated modeling, as well as a more general desire to develop alternative (i.e., non-modern) material and epistemic practices on the Earth's surface. This article addresses the varied and complex challenges that confront theories of planetary history and transformation that incorporate mythical storytelling into their epistemologies. The difficulties facing such efforts could not be more pronounced than they are in today's rancorous political climate, which has, and not unproblematically, been dubbed, "post-truth," and which has also mobilized various kinds of "fiction" to the detriment of the planet (e.g., Klein). In this context, I discuss how Roland Barthes was all too familiar with the myriad ways in which mythical signification in particular could be wedded to exploitative systems of power (Barthes, Mythologies). In what follows I systematically address these and other challenges in what I consider to be mutually informing "layers of complication" that give shape to the problem of incorporating mythic signification into our epistemologies of planetary and geological phenomena. Along the way I expose how media and communication theory is an invaluable resource for unpacking these layers of complication, mainly because it brings into sharp relief the communicative essentialisms underwriting our various theories of geomythology. In the end, I insist that it is actually our limited understanding of media and communication in the context of planetary and geological process that stands in the way developing a robust theoretical framework for mythical signification in our current geological epoch. The work of Isabelle Stengers, Alfred North Whitehead, and contemporary media theory will prove especially useful for framing this argument.

Stones Flow: Writing Australian geo-hydrohistoriography
Loo, Stephen (UNSW Australia; s.loo@unsw.edu.au)

Water flowing through the stony country in the driest continent on Earth is an unsettled concern, marked out by intense public discourse, layers of power and regulation, and discordant visions. Rarely however, do the water's and stone's own geo-hydrohistoriography feature in these accounts. While water and stone are intimately connected to empire in colonial Australia, they are not merely inert material which can be quantified and exchanged, but unholy bio-assemblages organisms, soil, chemicals, minerals and particulate life; entwined with technological, social, cultural and material practices. Water and stone make possible complex speciation and ecological affiliations, while holding traces of the composition and decomposition of geological histories beyond human occupation. Reflecting on the desert goldmines of Western Australia, and Aboriginal eel farming practices in the volcanic country of Victoria, this paper performatively provides critical thoughts on the biophilosophical implications of writing a history of flows of water and stone. The evidence of flows is never uncomplicatedly 'found'; the historian, as itinerant after Deleuze 'follows a flow': intuiting, intensifying, transducting, confabulating. And with Meillassoux, we ask how does historiography deal with the bio-historical truth of water and stone when their existences precede any possibility of correlations between human observation and the world observed, as the latter is prior to current scientific methods of geological understanding? Writing the lithosphere therefore reconceptualises what are the limits of historiography, to critically engage the forces which shape its epistemologies, and the ontological role it plays in the definition of the human, its societies and relations with non-human others.

4K "Blackness and the Empire" *MU224 Gila*   **Chair: Michael Bennett**

Retcon and Race: Post-racial blackness in the Star Wars Franchise
Evans, Taylor (UC Riverside; tevan001@ucr.edu)

In this paper, I work to theorize "retconning"—the act of establishing some "retroactive continuity" in a fictional universe. This essay specifically looks at the way the decades-old *Star Wars* saga has incorporated non-white human characters in its many sequels and spin-offs, an apparent attempt to retroactively construct a palatable post-race universe from the framework of the iconic but all-white original. It takes the first trailer for *Star Wars: The Force Awakens*, which opens with black British actor John Boyega's sudden appearance as an unmasked Stormtrooper against a nostalgia-tinged desert background, and the reactions this image provoked, as occasion to focus on the history of blackness in the franchise. How does the original film's whiteness signify in the trailer's nostalgia-charged imagery? How does Lucas's approach to casting compare with Disney's soft reboot? How does Disney's exquisite balance of novelty and nostalgia reflect the larger demands of retroactive continuity? Working with a formal tradition theorized in Roland Barthes' "reality effect" and enriched by recent sf scholarship from David Wittenberg and John Rieder, I seek to link formal interventions in the development of a *Star Wars* continuity with the racial politics of the franchise. To do so, I draw on Samuel R. Delany's 1977 review of *Star Wars*, Eduardo Bonilla-Silva's *Racism Without Racists*, Adilifu Nama's *Black Space*, and Sylvia Wynter's racial theorization of liberal humanism, to argue for a connection between the franchise's use of retcon, the franchise's evolving post-racial context, and America's post-racial ideology.

"All is Always Now": Slavery, Retrocausality, and Recividistic Progress in Samuel R. Delany's Empire Star (1966)
Shephard, Andrew (Stanford University; Washep@stanford.edu)

In many ways, slavery can be considered the central issue of the African-American literary canon—even works which don't address it directly are in some way grappling with its legacy. Though contemporary blacks have no direct experience of slavery themselves, they nonetheless continue to be affected by it—both psychologically, due to the awareness of the suffering of their ancestors, and more materially, due to the impact of historical contingency upon their own personal circumstances in the present. This, however, creates a significant formal problem with regard to literature—namely, how does one adequately represent such a fraught relationship to the past? I would contend that while realistic modes of representation can sometimes struggle with the abstraction of such concerns, the speculative genres such as science fiction provide a way of rendering these concepts into more concrete or accessible forms. A prime example would be Samuel Delany's early novella *Empire Star* (1966), a revisionist space opera which uses the science fictional trope of the bootstrap paradox and Einsteinian theories of relativistic time as metaphors for the recurrence of slavery and imperialism throughout history. Delany's projection of chattel slavery into the far future allows him to estrange the reader from a historical phenomenon that is both all too familiar and incomprehensibly alien. Moreover, in configuring his own contemporary moment as a "prehistory" to such a future, he suggests that we may not currently be as free of such behavioral patterns as we would like to believe.

Experimental Regulatory Futures
Bennett, Michael (Arizona State University; mgbenne1@asu.edu)

Martin Luther King, Jr.'s (1963) "Letter From a Birmingham Jail" is widely and justly hailed as a classic instance of the polemical essay, and a giant in American letters. And though continuously poured over by masses scholars and mined by halo-effect-seeking politicians since its publication, the Letter's extensive discussion of chronopolitics —here grossly described as political interventions fueled by, framing or largely targeting temporal concepts— remains under-attended. Building on and diverging from King's notion of sovereign-imposed delays as a powerful mode of political suppression, this presentation describes the political uses that sovereigns can make of experimentally, synthetically accelerated time, and their material fallout for their subjects. Abandoning normative liberal models, the presentation meshes ultra-realist conceptualizations of sovereignty trafficked in contemporary North American avant-garde constitutional legal theory (Lessig's New Chicago School) and Black Atlantic post-biopolitical theory (Mbembe's Necropolitics) circles. It then uses that synthesis to articulate novel, plausible chrono-centric modes of sovereign action through which marginal communities and other "disposable" populations are instrumentalized as experimental probes of provisional futures. These modes, effectively speculative scenarios, reveal how chrono-sovereigns confronted with growing ranks of work-agnostic, anarchistic and otherwise noncompliant subjects can convert such troublesome DuBoisian "problem people" into valuable partial solution people. Such experimental subjects, however, will likely experience new, profound and scalable forms of material, psychic and symbolic suffering. The presentation closes with sketches of these governance gains and subject costs, and, lastly, drawing on speculative narratives and their complementary critical literatures, possible chronopolitical countermeasures to this new darkening.

4L "Science Fiction Reading, Writing, and Rhythms" *MU225 Yuma*
         Chair: Michael Simeone

Searching for Strangegrams: Using Machine Learning to Understand How Science Fiction Creates Novelty
Finn, Ed (Arizona State University; edfinn@asu.edu)
Simeone, Michael Paul (Arizona State University; mpsimeon@gmail.com)

In science fiction texts, is there a consistent and low-level set of language features that help to produce the genre's signature estranging effect? This paper will present the results of experiments conducted by Michael Simeone and Ed Finn, wherein science fiction texts from Project Gutenberg were used as training and test data for a classifier aimed at distinguishing between narrative vs. inventive moments. The paper will discuss the foundations of the experiment in Darko Suvin's concept of the *novum*, and follow with a presentation of early findings and later refinements to the procedure. Through the analysis of thousands of sentences, the authors demonstrate the beginnings of an understanding of "strangeness" at a lexical and syntactic level. While the results offer new insights into the genre of science fiction, crucial questions about the relationship between science fiction and strangeness remain (i.e. does the type of strangeness detected here function outside the boundaries of specific literary texts?).

"Reading Jeff VanderMeer's *Borne* after the end of the world
Karnicky, Jeff (Drake University; jeff.karnicky@drake.edu)

Borne, the title character of Jeff Vandermeer's 2017 novel *Borne*, is a mutable invertebrate and a reader. After Borne learns to speak, he teaches himself tor read. He quickly reads every book available in the post-apocalyptic landscape he inhabits and defines himself through reading. "I read and sample and observe every day. It is what I do." This paper will explore Borne's conceptualization of reading after the apocalypse. The novel does not give in to a nostalgia for a lost past embodied by books as Borne rejects the classical education that the narrator wants to provide for him. Instead, Borne embodies the very act of reading. His skin becomes intelligent as he reads his environment. "All the contamination" of the Earth informs Borne's definition of himself. "It makes me be sure of my self every moment and keep track of my self." This self is incredibly mutable, always, growing, stretching, contracting, and mimicking. Borne's acts of reading come to exemplify what Isabelle Stengers calls "the art of paying attention." As he roams his poisoned world, and mirrors a giant bear, Borne pays careful attention to his world as he finds what Stengers calls "connections between what we are in the habit of keeping separate." Reading *Borne* calls for a reading after the end of the world that embraces the contradiction that Borne writes in his journal. "I am a robot. I am a person. I am a weapon. I am not/ intelligent."

Music, Human, and Non-Human Times: Theoretical Observations and Fictional Investigations
Reichardt, Ulfried (University of Mannheim, Germany; ulfried.reichardt@freenet.de)

"[H]ow … does one learn Time? In Music we find out! … [The] drive to build music-structures might be the same one that makes us try to understand the world." (Marvin Minsky) Taking my lead from the specificity, context dependency, and contingency of time and temporalities, which I will sketch looking at a wide spectrum of disciplines and cultures, I will focus on three novels by US-American author Richard Powers in which he investigates the relationship between music and organic processes, as well as between music and physics, in particular with regard to similar as well as distinctive temporalities. Technologies of measuring can be observed in conjunction with "analogical" rhythms that are translated into numbers and thus quantified, DNA coding being one of Powers's main examples. Time is of the essence here, as societies control their members as well as their environment by way of temporal regimes. Conceptions of time have to be reconsidered in the light of non-human temporalities, and human temporalities have to be understood in relation to observing technologies. Music is a privileged medium in and through which varieties of non/human temporalities can be observed, staged, tested, and (re-)constructed. Narrative, moreover, is a medium in which different forms of time can not only be described but also enacted. Literary texts thinking about and with time therefore have to be read in conjunction with theoretical ones and vice versa, interfacing music, literature, biology, and physics in multiple ways.

Time's Refuge: Trauma, Exile, & Out-of-Time-ness in *Star Trek*
Malouin, Hayley Rose (Brock University; hm11nq@brocku.ca)

"They say time is the fire in which we burn." - Dr. Soran, *Star Trek: Generations*
The goal of this paper will be to explore time's role in the phenomenon of trauma. More

specifically, it proposes that the complexity of time as both an instigator and healer of trauma can be witnessed in instances of its manipulation in the television series and films that comprise the Star Trek canon. Ultimately, this paper claims that the conceptualization of time's tangibility within such a science fiction framework allows for an understanding of it as a mutable experience, thus inviting an exploration of time's uses as a healer of trauma – particularly that of refugees and exiled peoples. Themes of exile, refuge, and cultural preservation, abundant in the worlds of Star Trek, are intrinsically bound up with time – its power, its ubiquity, and, conversely, its limits. Through a number of case studies, this paper aims to explore how the experiences of exiled individuals and communities within the Star Trek universe converge with and depart from the experiences of those impacted by the current global refugee crisis. In what ways does time – the presence, quality, and dis/possession of it – affect those displaced by war, genocide, and social collapse? This paper calls for an embracing of science fiction tropes that would claim our understanding of time as a linear sequence of cause and effect can be halted, and that by doing so the role of time in trauma can be identified, contextualized, and manipulated. Can we in the contemporary suspend and use time to heal the trauma of violent and uncertain displacement? Can we harness time into a nexus, a wormhole, or a warp bubble in such a way that time becomes a tangible space outside of the passage of itself?

4M "Time and (Un)doing" *MU248 Rincon*   **Chair: Wood Roberdeau**

The Anthropocene and Literary Memory
Crownshaw, Richard (Goldsmiths; r.crownshaw@gold.ac.uk)

This paper explores the challenges posed to literary memory by our new geological epoch, the Anthropocene, by mapping the cultural memory work of contemporary fictions. For example, the future imaginaries of Jamieson and Nadzam, Bradley, and Watkins realise a more fully developed Anthropocene, often subject to cognitive dissonance in our own present. These works' speculative futures offer prospective retrospection: speculative remembrance that narrativizes the complexly unfolding catastrophes of our age, and remembers the ways that the fossil-fuelled socio-economic regimes of modernity – imperilled if not in ruins in these literary imaginaries – interpellate those who have and have not survived their collapse. Despite the centrifugal direction of cultural memory studies of late (from the national to the transnational), this would be a recalibration of the conventional temporal, spatial and humanist scales of remembrance: the epoch can only be identified through the imagination of deep, geological time and previous conditions of species and environmental precarity; anthropogenic planetary change is belated, as in the afterlife and after-effects of radioactive fallout and greenhouse gas emissions, the temporality of which is further complicated by the way these after-effects engender feedback loops in Earth systems; the planetary scale of change takes place across interconnected human and nonhuman dimensions and systems, organic and inorganic matter. In sum, this paper assesses whether fiction can stage such a recalibration.

Time and Environment in *The Survivalist*
Roberdeau, Wood (Goldsmiths; w.roberdeau@gold.ac.uk)

'The event of dwelling exceeds the knowing, the thought, and the idea in which, after the event, the subject will want to contain what is incommensurable with a knowing.'
—Emmanuel Levinas, *Totality and Infinity*

If not within an eventful moment, at what subjective level do we understand an ecological encounter? How might such an encounter be performed or communicated and what does such a possibility suggest for the comprehension of environmental crisis? This paper considers a philosophical triumvirate that addresses the temporal condition of 'dwelling' to analyse Stephen Fingleton's post-apocalyptic film *The Survivalist* (2015), set in Northern Ireland. Heidegger's search for an engaged aesthetics, Levinas's ethical approach to interiority and exteriority, and Derrida's contextualization and definition of 'hostipitality' each inform an argument for how selected scenes deliver a powerful message for thinking 'end times' and the Anthropocene. Emphasis is placed on the notion of 'habit' or the 'everyday' gesture as a constant with which Fingleton interrogates the scale effects of human impact on environment and the question of our animality. The film covers several days over which three protagonists focus their energies on sustenance through cooperation and (mis)trust and therefore on what I refer to as the 'future-present'. Each day contains key actions, objects and imagery (e.g. of foraging, farming, repairing, hiding) that will be closely considered in terms of experience and sacrifice. These differing sensorial registers become enhanced by the attention directed at their time and space.

'Give them some more time': the ends of sacrifice in *White God*
Turner, Lynn (Goldsmiths; l.j.turner@gold.ac.uk)

Not just one among other slaughtermen, the father figure in Kornél Mundruczó's 2015 film White God, is an abattoir inspector. It is he who decides what is 'good to eat'. His judgement is thus firmly aligned with symbolic law above and beyond simple edibility, if there is such a thing. Yet at the film's concluding scene, in the theatrical space of a courtyard flanked by abattoir buildings in a eugenically inflamed Budapest, he surrenders this power of decision or law making. This surrender is not entirely volitional but is the lesson inspired by the actions of his daughter, the lead human figure in a film otherwise dramatized by dogs. Facing a vast band of dogs, now violently aligned against all humans, the young girl realises her erstwhile exceptional status has run it course: music will no more calm the beasts and 'fetch' is a risible game that will no longer play. Lying down on the same plane as the dogs, the girl vacates her human verticality. Observing the scene from the abattoir balcony, her father hesitates. In the face of a panicking worker's plea for protection, he says no, don't call the police yet. "Give them some more time".

Through the prism of this extraordinary film, this paper will consider the possibility of revolution, the end of sacrifice and the gift of time.

Synthesis Open Atelier: Serra Vegetal Life and Other Scenarios *Matthews Center 2ⁿᵈ Floor iStage, MC222*
Oana Suteu, Todd Ingalls, Sha Xin Wei, Brandon Mechtley, Chris Ziegler + Synthesis

Hosted artist-researchers working in open atelier at Synthesis, will be available to talk with visitors in the iStage. These include media artist and researcher Todd Ingalls, Montreal filmmaker and installation artist Oana Suteu, media artist and theorist Sha Xin Wei, and other experimentalists. The Synthesis atelier creates instruments for gesturally responsive timebased media, along with techniques for irreal play. We host streams of inquiry that course transversally

across experimental arts, non-theatrical performance, and speculative engineering. Current streams include: vegetal life (Serra plant movement), experiential climate, irreal acoustic/lighting ecologies, multi-scale rhythmanalysis, and
ontogenesis. (Synthesis: synthesis.ame.asu.edu/, Serra Vegetal
Life serracreation.weebly.com, Serra Montreal: vimeo.com/synthesiscenter/serra, Experiential Atmospheres: vimeo.com/synthesiscenter/clouds,
forest2: chrisziegler.de/outvideo.php?video_id=47)

Workshop Session 4: "Investing in Futures, Workshop 1" *Matthews Center 2nd Floor, MC218*   **Facilitators: More&More Unlimited (Marina Zurkow and Sarah Rothberg)**

This world-building workshop will ask you to imagine radically different possibilities for what the future could look like. Participants will choose randomly from a deck of cards containing parameters that could describe a society, such as government, food availability, and working conditions. Then, they'll work together to conceptualize, diagram, and craft artifacts from worlds that could meet those constraints — alternate realities that will perhaps spark solutions for our current one.

Participants will make prototypical "artifacts" that we create during the workshop. These will be put on display in an EPCOT/PF (experimental prototype community of tomorrow's parallel futures) vitrine in the gallery alongside museum descriptions.

Some things you can expect from the workshop are:

- Wild Imaginings
- Parametric Possibles
- Beverages and Snacks
- Future-Artifact Crafting
- A Glimmer of Hope

Workshop Session 4: "SLSA Creative Writers Read 2: Fiction and Poetry Out of Time" *The Virginia G. Piper Center for Creative Writing*

In this creative session, a novelist and two poets will read from their work and discuss their artistic aims in relation to the conference theme, "Out of Time." As writers and scholars, we will consider how literary meaning can depend on timing; how the human body can inspire mathematical and poetic thinking; and how biological scale is related to poetic form. Readers and writers of fiction, poetry, and creative non-fiction are welcome to attend and join in the discussion.

Transfigured Word: A Metamorphosis of Meaning in Time
Luis O. Arata (Quinnipiac University; Luis.Arata@quinnipiac.edu)

A reading of selected passages from my novel *Transfigured Word* opens a reflection on the time dependency of meaning. As the sense of words becomes unstable with the passage of time, the

spread of uncertainty gains physical manifestations. Such inevitable metamorphosis has consequences that affect the course of events in the novel.

Hypatia's Lament
Mari-Lou Rowley (University of Saskatchewan; mrowley@sasktel.net)

As a child, I was fascinated with numbers and patterns. As an idealistic undergraduate, I wanted to be an Egyptologist and study the lives of Hatshepsut, Cleopatra and other powerful female figures from ancient history. Decades later, in 2009, I started a manuscript of math poems, and on reading Stephen Hawking's *God Created the Integers* I was irked to discover that the life and work of Hypatia—the first female mathematician recorded in history—was only mentioned in a footnote. Also a revered astronomer, philosopher and teacher, Hypatia lived in Alexandria during the turbulent 4th and 5th centuries (CE) when Christianity was rearing its ugly, intolerant head. Her beauty, intelligence and brutal murder are legendary. As homage to her life and work, I chose an heroic crown of sonnets for way the symmetry and interlocking structure reflects the mathematical theme. The crown consists of fifteen sonnets, where the last line of the first sonnet becomes the first line of the second, and continues to the fourteenth. The fifteenth sonnet is comprised of the first lines of all the preceding sonnets, beginning with the second and ending with the first line of the first sonnet. Although my poetry not typically formalist, I am drawn to the sonnet for the succinct form and shift in register at the volta. The poems are written in Hypatia's voice with the lexicons of her time. Reading the work nearly a decade later, I find it eerily prescient of the intolerance and violence of the present.

Time, Scale, and Poetic Form
Karen Leona Anderson (St. Mary's College of Maryland; klanderson@smcm.edu)

My work on scale-shifting over the last few years will be the basis of this presentation of poems written over the last year. In work ranging from poems written about weeds to vermin to dystopian futures, this presentation of my poems will be based on a how poetic form might best represent radical shifts between different time biological scales, from the mayfly's one-day adult incarnation to bristlecone pines that live for thousands of years. Within the parameters of human perception, how much of this experience of time is possible to imagine, and how might poets point to that which exceeds our experience? Working with formal models based on the work of Stephanie Strickland, Ross Gay, and Emily Dickinson, I attempt to integrate narrative pressures with lyric atemporality as a part of a Harawayian project of not "thinking with" but "living with" the nonhuman. If, following Dipesh Chakrabarty's claim that to think environmentally is to think simultaneously across "multiple and incommensurable scales," this presentation will ask how might we use poetic form in particular to demonstrate that kind of thinking.

Lunch 12:30 PM – 2:00 PM

[Executive Committee Lunch at University Club 12:45-1:45]

Friday, November 10, 2017, Session 5: 2:00 PM – 3:30 PM

5A "Queer Time, Queer Evolutions" *MU236 Mohave*   **Chair: Samantha Cohen**

What happens to our notion of the human if we consider evolution and the non-human through the lens of queer time? While the effects of queer time on individual subjectivity have been well-examined, the effects of queer time on collective evolutionary history have thus far been understudied. This interdisciplinary panel brings together queer creative writers and scholars to interrogate temporalities of linearity, heterosexuality, capitalism, and the human through conversations across speculative fiction, visual art, and feminist theory. Our presentations explore common ground between recent theories of evolutionary time and queer time. Dagmar Van Engen traces the queerness of gender-nonbinary sea invertebrates in H.P. Lovecraft's reimagining of evolutionary and colonial time; Martabel Wasserman archives seashell imagery in visual art to investigate how vacuity and spiral formations are instructive to queering capitalism's hard line of progress; Samantha Cohen reimagines the history of evolution and ideas of the natural by observing plants and animals through a queer femme lens as part of a larger speculative fiction project; Rebekkah Dilts investigates how contemporary queer of color experimental writers use queer time to recast notions of the cyborg and the Anthropocene.

"Disordered Time and Alien Natural Law": Queer Invertebrate Evolution in *At the Mountains of Madness*
Van Engen, Dagmar (University of Southern California, Department of English; vanengen@usc.edu)

In H. P. Lovecraft's 1931 novella *At the Mountains of Madness*, scientists find evidence of an ancient, invertebrate-like alien civilization and realize that "something – chronology, scientific theory, or our own consciousness – was woefully awry" (45). In this narrative of white male scientists displaced from the apex of evolution, a superintelligent species of tentacled starfish-like aliens creates all life on earth through, essentially, a laboratory accident. Through primitivizing, animallike descriptors, Lovecraft's alien scientists transform the white male narrators into the racialized, subhuman others sensationalized in popular science of the 1930s. This presentation draws on queer theories of temporality and the nonhuman to read the geological and biological aberrations in *At the Mountains of Madness* as a queer rewriting of evolutionary and colonial time. Lovecraft assembles his alien Old Ones as a mishmash of aquatic invertebrate species (mollusks, sea stars, octopi, etc.), imbuing the Old Ones with these animals' communal, nonbinary gender, sexual, and social structures (23). By elevating and rewriting the biology of marine invertebrates, Lovecraft's narrative accomplishes a queer loop or fold in evolutionary temporality in which mollusks and starfish out of their proper time supercede – even create – the European scientists who study and classify them. While the end of the novella walks back this promise through a return to familiar tropes of civilization and savagery, the unruly narrative middle offers a queer rewriting of evolutionary time and racialized species hierarchies by reimagining invertebrate animal life. My presentation concludes with a speculative fictionalized rewriting of the end of the story.

Gesturing Toward Queer Temporality: Erotohistoriography in Renee Gladman's *Event Factory* and Bhanu Kapil's *Incubation*
Dilts, Rebekkah (University of California-Santa Cruz, Department of Literature; rdilts@ucsc.edu)

Recent theories of queer temporality seek to attend to experiences of loss, trauma and marginality by advocating conceptions of history that fracture or deviate from "straight time." Elizabeth Freeman's notion of queer temporality in particular postulates that a queer writing of history can be both embodied and erotic. In this paper, I will consider how Renee Gladman's book *Event Factory*, and Bhanu Kapil's *Incubation: A Space for Monsters* expand upon Freeman's ideas about an embodied and erotic queer writing of history and push evolution into a queer mode. Gladman's and Kapil's works are invested in questioning the relationship between texts and bodies, object and experience, language and intimacy; the authors' personal experiences as queer – variously as woman, lesbian, immigrant, racial minority – have called upon them to create their own queer relationships to space, language and personal history.

In *Event Factory*, I am interested in how the book's defiant narrative structure and invention of an "un"-readable language offers a queer poetics that itself gestures towards a queer temporality that emerges from the act of reading. In Kapil's *Incubation*, I aim to explore how the narrator's act of hitchhiking is a queer one that seeks to abandon neat temporal frames like family, femaleness, and safety. The book's invocation of the cyborg body, via the act of hitchhiking, seeks affinities in boundary-less or border spaces that produce "queer" types of identification and intimacy.

Institute for Flying: A Queer Reimagining of (Un)Natural Selection
Cohen, Samantha (University of Southern California, Creative Writing and Literature PhD Program; samantec@usc.edu)

In this presentation, I will share two excerpts from my speculative novel-in-progress *Institute for Flying* which re-narrativizes the plant, animal, fungal and microbial worlds as queer and thereby drafts a blueprint for evolution into queerness. Inspired by pataphysics, Alfred Jarry's science of imaginary phenomena, my project uses flying as both a metaphor and a pataphysical aim. As opposed to Darwinist evolution, which looks at the floric and faunic world as though it is obvious plants and animals are hetero/binaristic, survival-oriented, colonialist, and competitive, the Institute for Flying observes them as though it is clear they are pleasure-oriented, collaborative, sexually-diverse, and intersubjective. In my presentation, I will, in the persona of an Institute researcher, offer some of the Institute for Flying's theory, methodologies, and findings, accompanied by photographs and diagrams. After grounding the audience in some of the Institute for Flying's fictive scientific theory, I will read a scene from the novel—as the researchers try to evolve into queer subjects, their transformations and hurdles serve as both application and complication of the theory itself. This work then, both takes itself seriously and dismantles itself; it both celebrates and satirizes institutions' potential for liberation and transformation.

Seashell Aesthetics: Queering the Temporality of Extraction
Wasserman, Martabel (California State University-Long Beach, Angels Gate Art Center; martabel@angelsgateart.org)

In her famous essay "The Cyborg Manifesto," Donna Haraway claimed, "Though both are bound in a spiral dance, I would rather be a cyborg than a goddess." This talk uses the seashell's spiral shape as a model for reconciling feminist debates between second-wave return-to-nature politics

with queer, poststructuralist critiques of the natural. By considering time as a spiral rather than a straight line, it becomes possible to reimagine the dialectic as a movement by which discourses twist, turn inward, and always come face-to-face. In my seashell-based art historical archive, I discuss seemingly disparate visual artworks together: Robert Smithson's land artwork "Spiral Jetty" with the photographs with collages of second-wave feminist artist Mary Beth Edelson, and the queer performance art of Narcissister with protest posters that center the shell as raw material of fossil fuels. These works of visual art show how the remains of sea life such as the shell queer the capitalist temporality of constantly increasing production. The seashell in these works offers a way to reframe feminist approaches to liberation and a collective relationship to the non-human through a queer temporality of expansion and sustainability.

5B "The Time(s) of Life, Temporalities of the Living and Non-Living, II: Mountains and Time" Papers from the Society for the Study of Biopolitical Futures *MU228 Cochise*
	Chair: The Transhuman Alliance for Climbing Theory (Nicola Masciandaro, Bo Earle, Margret Grebowicz)

"Then a new idea took possession of me, and I shifted my thoughts to a consideration of time…" (Petrarch, *Ascent of Mt. Ventoux*). Among other things, Petrarch's alpine anti-epiphany, wherein he realizes that the mountain he has climbed is not the one he needs to, is paradigmatic of the modern form of subjectivity. The latter finds itself less somewhere in the universe than some*when*, dwarfed by expanding horizons of timescales before which even the highest of earth's mountains appear to shrink, humiliated by the cosmic depth of the very processes that generate them. The modern experience of mountains is haunted and thrilled at every turn by their in/trans-human temporality—from early modern speculations into the sacred history of orogeny to the sublime geologies of romanticism. This panel's historical investigations of said hauntings and thrills hope to arrive at a point from which to begin ask what mountains mean "today" (whenever that may be), after the "age of mountains."

Hideous Vociferations: On Lovecraft's *At the Mountains of Madness* and the Sound of Time
Masciandaro, Nicola (Brooklyn College, CUNY; nicolam@brooklyn.cuny.edu)

As if telescoping modern and medieval alpine aesthetics, the dialectic of 'mountain gloom' and 'mountain glory' famously explored by John Ruskin in *Modern Painters*, H. P. Lovecraft's *At the Mountains of Madness* plunges the Romantic sublime into an abyss of neo-medieval cosmic terror wherein the nearly gnostic fallenness of terrestrial nature and the mystical heights of its beauty become maddeningly indistinguishable: "For a second we gasped in admiration of the scene's unearthly cosmic beauty, and then vague horror began to creep in our souls." Given the geological framing of the story, its forays into the horror of deep time are to be expected, such as when we are presented the fossilized "print of some bulky, unknown, and radically unclassifiable organism of considerably advanced evolution." Less explicable is Lovecraft's attention to *sound* in this text, which is also conspicuously correlated with time, as in the bathetically monstrous appearance of a penguin's squawk, in which the narrator's sensibility verges on parody of the assumptions of supernatural horror: "What we heard was not the fabulous note of any buried blasphemy of elder earth from whose supernal toughness an age-denied polar sun had evoked a monstrous response. Instead, it was a thing so mockingly normal and so unerringly familiarised by our sea days off Victoria Land and our camp days at McMurdo Sound that we shuddered to think of it here, where such things ought not to be. To be brief—it was simply the raucous squawking of a penguin." As

this example suggests, sound may operate as a weird kind of mirror or hinge between time's dimensions, bringing past, present, and future into correlations invisible to spatial experience. So in the conclusion of the tale, Lovecraft constellates the last "demoniac glimpse … of what lay back of those other violet westward mountains which the Old Ones had shunned" with the haunting piping sound of the Shoggoths, now crystallized into unhinged graduate student's "repetition of a single made word … '*Tekeli-li! Tekeli-li!*'" Beginning with an exegesis of this complex moment in light of its verbal source in Edgar Allen Poe's *Narrative of Arthur Gordon Pym of Nantucket*, this paper will explore the significance of the empirically counter-intuitive concept of the 'sound of time' in the context of Lovecraft's mountain aesthetics and the cultural history of mountains more generally. In what sense does the figure of the mountain represent for human culture not only a factual concept full of multifarious meanings, but a veritable sonic image of what most terrifyingly makes no sound at all: time?

Climbing without Ascent: The Rhythms of Nietzschean Pretension
Earle, Bo (University of British Columbia; bo.earle@ubc.ca)

As a metaphor for knowledge, enlightenment organizes space and time toward the aim of elevation from and repudiation of the earth. We climb to the light, excavating ourselves from the earth and the dark senses. Paul Ricoeur characterized the founders of modern critique of enlightenment--Nietzsche, Marx and Freud—as "masters of the hermeneutics of suspicion." Whereas Freudian and Marxian critique hinges on empiricism, Nietzschean critique is more often a function of style. Marx and Freud gave new focus to materiality but generally from the rather timeless, rational, objective perspective. Hence the descending trajectory of their thought: excavating the subconscious beneath consciousness, the base beneath the superstructure. But Nietzsche's signature notion, overcoming, is arguably *reducible* to this ascending pretension. As *pre*-tension, however, ascent engages the crucial temporal dimension of Nietzsche's critique. Whereas Ricoeur characterizes the method of Marxian and psychoanalytic critique as unmasking, Nietzsche's stylistic critique presumes that masks are inevitable, that there is no true world underneath the apparent one. Likewise, whereas unmasking relies on what Aristotle called moments of tragic reversal and recognition, Nietzsche insists such moments are always disguised parodies of themselves, pretensions to insight. Overcoming enlightenment's spatial condescension toward the earth and body means overcoming the condescending temporality of narratives of punctual revelation: bodily liberation means bodily levitation, bodily upheaval registered in the open-ended, reeling rhythms of eternal return. "In every Instant being begins; around every Here rolls the ball There. The middle is everywhere." Hence "the path of eternity" is "crooked," but this crookedness is itself organized by the rhythm with which each articulation of Here and There rolls into the next, the rhythm of this recurrent mutual mediation. This essay considers this rhythmic aspect to critique of enlightenment in Nietzsche's own text and in Romantic and Modernist poetry.

The End of Everest: Upward Mobility and the Time of Climbing
Grebowicz, Margret (Goucher College; margret.grebowicz@goucher.edu)

One of the most astonishing images of Anthropocene congestion to emerge in recent years is *National Geographic*'s photo of climbers ascending the Lhotse Face in a dotted line, one after another, like tiny ants, dark against the white snow. As it becomes easier to climb than ever,

more and more Everest deaths are attributed not to falls or the effects of oxygen depriavtion in the Death Zone, but to climbers having to wait—thereby becoming more fatigued—before they even reach that altitude. Furthermore, inexperienced climbers are causing bottlenecks and accidents, and they sometimes don'tt follow protocol with climbers who are injured or in trouble. People are left for dead who might have been rescued by climbers who were not as new to the game or such a hurry to summit because this was their only chance. Thus, compared to the rest of the Himalaya, today's Everest deaths are nondramatic and unglamorous, with distinct inflections of social and environmental loss. Meanwhile, the mountaineer has become an icon of what Dominic Pettman calls "the corporate sublime." Today's climbing body is more often than not presented as a convergence of the values of performance, speed, and efficiency, in perfect compliance with neoliberal fantasies of the individual who overcomes adversity, as well as biopower's demand for docile bodies. This paper takes the recent death of speed solo climber Ueli Steck, one of the most "optimized" bodies in the history of the sport, as an opportunity to re-examine Everest—at once the symbol of mountainness itself and an icon of the end of Nature. What does it mean in today's climbing industry? And what does climbing-as-industry mean in late capitalist imaginaries of upward mobility and gaining time?

5C "Times that don't add up (II): differences" *MU240 Navajo*   **Chair: Cassou-Noguès**

In his novel Vendredi ou la vie sauvage, Michel Tournier links Robinson's new freedom to the emergence of another temporality and sees it as a break from « a morale of accumulation ». What Robinson must free himself from is a time in which things accumulate and are numbered: crops, marks on the pine tree that serve as a calendar. Tournier takes up Max Weber's claim that capitalism is born out of a certain view of time, according to which it is a sin to waste one's time: time is money as it were, which means that it is a number/ . This panel will investigate the procedures through which literature breaks up the temporality of accumulation: a time that is linear and where moments may be numbered and added up. There may be various ways to reach new times: ephemeral writings, timely labyrinths, suspended moments. The "glitch" in electronic literature also introduces a distortion in the arithmetics that determine our experience of time. All these processes seem to point to another way to reorganize time and its arithmetics. Time is not simply extended beyond human temporality, in order to make room for a world without us, but is distorted into new forms, and new worlds, where our ancestral statements may appear as relying on a contingent arithmetics.

Ritual, Time, Technology, and the Flooding of the Rua River
O'Gorman, Marcel (University of Waterloo; marcel@uwaterloo.ca)

In Peter Murphy's 2013 novel, Shall We Gather at the River, Enoch O'Reilly hears the Old Testament voice of God amidst the static on a secret radio transmitter. That same night, Enoch is visited by Elvis Presley in a dream. All of this inspires him to become a radio evangelist who prophesies the flood of the Rua River in his hometown of Murn, Ireland. As Enoch works his way up to a nightly broadcast spot, which he will deliver with ritualistic fervor, the Rua River follows its own schedule, winding down the days until it devastates the town of Murn, compelling nine of its citizens to commit suicide. Shall We Gather at the River is a book of many temporalities, including the clockwork time of Enoch's radio show, the countdown to the flood on his father's ghostly transmitter, and the river's own geological and mythic time, which is

beyond human understanding. This presentation steps carefully through Peter Murphy's novel as a means of exploring the broad relationship between ritual, time, and technology. If, as archaeologists suggest, there is a direct link between geology, human rituals, and human evolution, then what do our own contemporary rituals reveal about our species today? What archaeological remains will our digital rituals leave for future generations? I will look at some specific rituals emerging from our adaptation to digital devices, and I will propose a series of counter-rituals designed to resist the technification of consciousness at the hands of digital rationality. Specifically, I will focus on the creation of new digital rituals, projects designed in the Critical Media Lab, that encourage individuals to "make attention" (faire attention) rather than "pay attention."

"This other minute will be another eternity". Numbers in hashish, poetry and marathons
Cassou-Noguès, Pierre (University Paris 8; pierre.cassou-nogues@univ-paris8.fr)

They will phrase it variously but it is a common experience among marathoners that, at one point, one has to turn into a "spiritual automaton", or "turn on the autopilot", so that time and distance can keep flowing. On the contrary, in his « Poem of the Hashish », Baudelaire describes how time in the experience of the user may open itself into an abyss, the minute turns into an eternity. It is also the case in an experience of great danger: time seems to slow down while the body is falling. Or in panic attacks. For Baudelaire, poetry represents one way to circumvent the infinite, inscribe the infinite into the finite and thus evade the temporal abysses of hashish. Contrary to the minute of the hashish, the verse is ruled by indivisible numbers. But what if numbers go wrong? Baudelaire asks: "are there mathematical madnesses, madmen who think that two and two equals three". Can we imagine a certain sense of "and", where two "and" two equals three? Could we still write verses? In this presentation, I will discuss rhythms that may, or not, keep numbers apart and time flowing. In question are the relationships between rhythms, numbers, and time, and the various ways in which material rhythms keep in shape numbers and times.

Archiving the Apocalypse?
Regnauld, Arnaud (Université Paris 8; arnaud.regnauld@univ-paris8.fr)

According to Wolfgang Ernst, archives have ceased to serve as mere supports for long-term information storage, giving way to what he calls "anarchives," or "hypertemporal rather than hyperspatial [systems], based on the aesthetic of immediate feedback, recycling and refreshing, rather than on the ideal of locked-away storage for eternity." A constantly self-editing archive pertains, however, to the iterative logic of differance and does not question the very possibility of the archive as an opening onto the future to come. After what Derrida had designated as the impossible, a hypothetical locus situated out of time designated as the "outside-the-archive," Peter Szendy offers a more radical approach anticipating the end of the world from the vantage point of "a cinefied point of view […] in which the real steps away from itself to make an image." This presentation purports to critique this postphenomenological approach (inspired by Quentin Meillassoux's critique of correlationism) by interrogating the relationship of technical images to a time out of time, deprived of any witness to record its existence. In other words, can we envisage the appearance of the world without a human subject, be it as an image, which would amount to a non-human technological apocalypse of sorts?

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

5D "Pursuing the Illogic of the Chronos" *MU242A Lapaz West*   **Chair: Julie Codell**

Excess Temporalities: Metalepsis, the Portrait Historié, and Artists' Chronotope
Codell, Julie (Arizona State University; julie.codell@asu.edu)

Among radical Pre-Raphaelite aesthetic subversions was their uncanny multiplying of temporalities. Merging personal and historical identities, they highlighted the relativity, excess and unreliability of past-present relations, subverting commonplace Victorian notions of linear history. I argue that Pre-Raphaelites borrowed metalepsis from Victorian novelists' "dear reader" that suggested a "shifting…frontier between…the world in which one tells, the world of which one tells" (Genette 1980). To achieve this disjunction between the narrative's diegetic time and the speaker's extradiegetic time, artists anachronistically inserted Victorian material objects into biblical and medieval narratives to fashion a disruptive counter-history (Helsinger 2000). This painterly "dear reader" foregrounded "the unsettling temporal doubleness of things" by which the past disturbs and animates the modern (Helsinger 2008). A second metaleptic device was their revival of the portrait historié: a Victorian (family, friend or lover) depicted as an historical or literary figure. To date, no one has explored rhetorical devices transplanted to Victorian painting and their intersection with material culture, time and historicism. The temporally conflated images of objects and figures shaped a simultaneity of moment (discrete) and duration (flow), a mise-en-abyme that dissolved history's chimera of unity. Interjecting chance and desire into historical time, artists implied temporalities in excess of history and a new artistic, time-traveling chronotope: spatial ambiguity constructed by a "temporality of transition" (Janice Best 1994). Dreams, desires, and invented memories created multiple temporalities that flowed forward and back without direction or didactic purpose and a radical hermeneutic that separated history (conscious, national, exterior) from time (unconscious, personal, interior).

"Outside the Logic of Chronos:" The Performative Materialism of Antonin Artaud
Fraunhofer, Hedwig (Georgia College; hedwig.fraunhofer@gcsu.edu)

In her article "The Archigenesis of Experience" (2009), Luciana Parisi proposes a timeline that goes beyond the evolutionary logic of linearity and beyond a generational causality that depends on sexual difference as the main motor of change. In lieu of "sequential timelines," Parisi proposes "transitory relations" that do not depend on past forms and emerge "outside the logic of chronos." (40) Parisi conceptualizes events that enact "rupture" and "irregular diversions" in a broad expansion of time and space. In this temporal unfolding, all experience is relational and makes possible a variety of multiple connections. In her work, Parisi engages the process ontology of Alfred North Whitehead, which interprets entities as emerging through their relationality and mutual entanglement and as driven by creativity as the principle of change and diversity. My own analysis proposes a diffractive reading of the French playwright Antonin Artaud's theoretical and dramatic work of the 1930s, especially his most famous play Les Cenci, as a material reconfiguration of a world that resonates and can itself intra-act with new materialist philosophies of time and space such as Parisi's. Artaud's work creates a dynamic affective ecology -- a performative assemblage of human and nonhuman actors, (human) spectators, and organic and inorganic material forces and energies -- that, although constantly becoming, eschews linearity and sequentiality, resulting in a complex and flexible human and

more-than-human system that enacts multiple planes of time and pushes events in novel and unforeseen directions.

Future Shock: Setting the 10k Clock
Price, Evander (Harvard University; evanderprice@fas.harvard.edu)

This paper is the beginnings of a dissertation chapter on the concept of Future Monumentality. Future Monuments are just like regular monuments, but they point in the opposite direction. Where regular monuments are expressly built to ask audiences to remember the past, Future Monuments envision and manifest an imagination of the future, and impel mindfulness of it. They show us how much future there is imagined to be. They inherently betray the aspirations and anxieties of the cultures that built them. They simultaneously highlight the creativity and the myopia of their makers. And they tend to be made at critical points in history: when the future pressures the present, people produce future monuments. The Clock of the Long Now is one such future monument. It is a colossal clock, secreted away in a mountain cave in Nevada, meant to measure time at the glacial pace of 10k years, and inspire an ethics of 10k year thinking: what decisions would you, and would you not make were you considering the ramifications of those decisions into a deep future? It is a response to the growing threats of Global Warming, nuclear catastrophe, and the anxieties of the Anthropocene. And it is bound up in implicit and explicit set of utopian political assumptions about what the future ought to look like, and who is, and is not included in that future. In this paper, I try to come to some understanding of this problematic clock.

History of Others: Museums and Other Institutions in the Post-Anthropocentric Era
Gustafsson, Laura (gustafssonlaura@gmail.com)
Haapoja, Terike (mail@terikehaapoja.net)

History of Others is a long term, interdisciplinary art and research project by visual artist Terike Haapoja and writer Laura Gustafsson. The project explores history beyond the scope of human perception through large scale installations, publications, lectures and stage work. History of Other's first touring exhibition, the world's first ethnographic museum for a non-human species The Museum of the History of Cattle (2013) presented 10 000 years of human-bovine history, from bovine perspective. The Trial (2014) was a participatory courtroom performance on the history of personhood and for the case for nonhuman legal personhood. History of Other's most recent exhibit, Museum of Nonhumanity is a touring memorial museum for the boundary making between humans and nonhumans. Consisting solely of archival images and quotes, the Museum shows how dehumanization is the common thread between all forms of oppression. In the Museum's programming local activists and thinkers are invited to propose more inclusive paths to a multi-species future. History of Other's fourth project on oil and eternity is in planning. In SLSA 2017 History of Others will discuss how art can help us collectively imagine what post-anthropocentrism would mean to societal institutions. How to deconstruct systems of knowledge, such as museums or history writing, from an interspecies stand point? How to activate audiences and involve local communities in the thinking process? How to use traditional, human-centered forms of representation for becoming aware of their implicit structures of othering, and for expanding our own thinking? www.museumofnonhumanity.org www.historyofothers.org

5E "Microbial, Fungal, and Nutritional Pasts, Presents, and Futures" *MU242B Lapaz East*
    Chair: Melissa Wills

Circular Logic: Tree of Life Diagrams and the Visual Proliferation of Microbial Life
Wills, Melissa (University of California, Davis; mawills@ucdavis.edu)

The place of humanity in Earth's biosphere is in conceptual flux. With the development of advanced genetic sequencing tools, scientists are identifying ever more microbial species, continually redefining the tremendous scale and diversity of the invisible life that surrounds us. This talk examines a particular visual device that is often mobilized to articulate this perspectival shift in contemporary science discourse: the reincarnation of the classic tree of life diagram in circular form. Drawing on historical accounts of the tree metaphor (Sapp, Pietsch), I describe how traditional phylogenetic trees (e.g., goo.gl/KgpZYK) frame an evolutionary narrative that identifies the development of higher organisms – the highest branches of the tree – as the endpoint of a perpetual movement away from their microbial origins. In contrast, I argue that today's circularized diagrams (e.g., goo.gl/p1lgjT) forge an alternative narrative of evolutionary equality. They reshape the contours of the tree of life: fusing the ends and turning the branches inward, they place the species nodes along the perimeter, each equidistant from the root of the tree at the center. These diagrams therefore reimagine evolutionary history as a multiplicity of parallel events, each culminating in a species equally evolved relative to its origins. Proximity replaces distance, relatedness replaces hierarchy as the lone node signifying humankind all but vanishes. Helmreich has questioned whether recent understandings of microbial genetic interchange threaten to "dissolve the tree of life." I counter that circular tree diagrams are rather revitalizing microbial taxonomy, capturing the breathtaking abundance of microbial life and redefining the place of the human amongst it.

The Future is Fungi
Buckvold, Andrea (andreabuckvold@gmail.com)

I would like to present my project studying fungi and their intricate linking to the health of the forest and the community that surrounds it. Fungi are a fascinating life form that both heals and kills. I am particularly interested in their ability to absorb toxins and become toxins themselves. Fungi are fascinating in their diversity of form, alien-like qualities, and their ability to communicate and become inter-dependent with the life forms surrounding them. My work explores how fungi might evolve on our ever more polluted planet. I am studying how mushrooms have medicinal properties for people, healing properties for forests, and protective properties against invasive species. Yet, they also are intense depositories of toxins and poisons that work in unexplained ways on people and forests. The presentation explores the idea of fungi as a counter-humanity force, that will evolve from the waste and pollution we create, to become something which we cannot fight. Something that can bring balance to the ecosystem. This project involves a series of photographs of real-world fungi, a set of drawings of fictional fungi, fiber works exploring different fungi's ability to control other life forms, and an animated film or video game where fungi are the anti-hero of saving the Earth from the greed, pollution, and the over-crowding of the planet by humanity. https://whobringstheday.wordpress.com

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

Hardtack: Tasting Temporalities of Colonial Violence
Kelley, Lindsay (UNSW Australia; l.kelley@unsw.edu.au)

How might taste might inflect how we understand history? This paper considers how with our ingestions of biscuits (cookies) and crackers, we taste charged temporalities that exceed us and are also inscribed into our nutritional landscapes. We taste the places where and manner in which wheat and humans have travelled together. We taste the movement of wheat from the fertile crescent to Europe to the Americas and Australia. We taste the consolidation of cultivated wheat species into common wheat, Triticum aestivum. We taste an ancient military standard for survival and healthy digestion. During this presentation, participants will experience and perhaps ingest hardtack, a survival food that sustained European voyages of conquest. Hannah Landecker looks to nutritional epigenetics to articulate food as an environment--food is a form of molecular exposure. Conquering bodies and settler bodies were exposed to hard tack above all, making this rock hard biscuit the nutritional environment of European colonial expansion. White supremacist patriarchal colonial culture continues to reckon with the bodies hard tack made. Thinking about Isabelle Stengers' trouble with tolerance and the ways in which educated tolerance excuses ignorance, we might consider the increasing precarity of wheat and gluten tolerance as an environmental shift, a change in our molecular exposure, a gut clenching, bowel irritating symptom of decolonization.

5F "DryLab 2023: Enacting a Future of Water Scarcity" *MU246 Coconino*
           Chairs: Adriene Jenik and Marco Janssen

Drylab 2023: Enacting a very near future, eight individuals lived in a remote location in the Mojave Desert for 30 days with only 4 gallons of water per person per day. From May 13-June 11, 2017, these individuals self-organized their use of limited resources and communicated each day on their experiences about living within those constraints.
We will give roundtable presentations followed by a short video documenting the experiment. Co-PIs artist Adriene Jenik and Dr. Marco Janssen will moderate a spirited discussion with the artist/scientist/scholar participants. During the roundtable, participants will reflect on various issues in which time played a role in the project's goals and outcomes.
Questions addressed may include:
- Why the near future? - How does a speculative timeframe help us think differently about our current environmental state?
- How does time affect social change? Is there something about the "slow-motion" of the changing climate that makes social/cultural change more difficult to manifest (as opposed to fast-acting and apocalyptic scenarios that force immediate change)?
- How has living within a future scenario impacted participants' resource usage?
- In water scarce environments people spend hours a day in collecting and processing water. What was the time allocated to water issues?
- How was time managed/structured during the project? What structures emerged from within the group? what other possibilities for structuring time exist outside of a market-dominated system?
- How did the lack of ubiquitous internet access alter participants' experience of their time.
- How much time does cooperative/collective decision-making process add to the daily experience?

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

Marco Janssen (DryLab co-PI, Professor in the School of Sustainability, and the Director of the Center for Behavior, Institutions and the Environment, both at Arizona State University)
Adriene Jenik (DryLab co-PI, School of Art, Arizona State University)
Krista Davis (video and performance artist currently an MFA candidate at ASU)
Willa Gibbs (BA in anthropology from Sonoma State)
Molly Koehn (environmental artist, received an MFA with an emphasis in fibers from ASU)
Val Lyons (MFA candidate at Arizona State University)
Cydnei Mallory (interdisciplinary artist pursuing her MFA at ASU)
Sarra Tekola (climate justice activist and PhD student in Sustainability at ASU)
Sydney Rood (sustainability student and activist, ASU)
Shalae Flores (co-founder of No Más Muértes ASU chapter)

5G "Game Studies 3: Worlds" *MU238 Apache*   **Chair: Alenda Chang**

How are games both well suited to environmental gameplay--world design, nonhuman representation, anthropogenic cause and consequence--and fundamentally compromised as environmental texts? What kinds of temporalities do game worlds allow us to create and explore, and are they necessarily human? This panel explores the relationships between games, worlds, gameworlds and their inhabitants.

Playing with Fire(watch): Game Mechanics, Aesthetics, and the Trouble With Wilderness
Dhaliwal, Ranjodh Singh (UC Davis; rjdhaliwal@ucdavis.edu)

Recent controversy in popular and academic game criticism has fought over the role of a videogame as a narrative vehicle, pitting the storytelling against some version of exploration, rehashing earlier methodological clashes between "ludologists" and "narratologists." In this talk, I shall look into ways in which Firewatch, a 2016 hit by Campo Santo, uses mechanics such as text-based menus and response-selection, but situates this extraordinarily linear storyline in an apparently expansive forest, a world waiting to be explored. Reading Firewatch to investigate the use of textuality in conjunction with the role of gamic (in)action, I claim that the game is a multiply textual form, sustained by a tension between the persistence of a text (at multiple layers, including the text in game, texts through game, and the text that is a game's code) and the ephemerality of an actionable gameworld. Using texts from game scholars like Alexander Galloway, Ian Bogost, and Dennis Jerz, and placing them in conversation with analyses of the classic thematics of masculine survivalist leisure such as William Cronon's "The Trouble with Wilderness," I propose an aesthetic solution to the hackneyed controversy between gamic story and gamic action, examining the mutual reflection between the aesthetics and the mechanics of the game. This visual critique of game mechanics enables a new understanding of the affordances of a game, its world, and that world's story.

Model, Manual and Meaning: Paratexts in SimEarth and in Climate Science
Buse, Katherine (UC Davis; kebuse@ucdavis.edu)

Will Wright's science fiction computer game SimEarth (1990) was created in consultation with NASA scientist James Lovelock as a software implementation of Lovelock's theories about planetary systems. It is notorious for being the first (and very nearly the last) planetary "god game," as well as for its often frustrating and baffling gameplay. The game manual, which, at a

whopping 250 pages, includes an introductory earth sciences textbook and a preface by Lovelock, suggests that SimEarth is intended to be a playable version of a climate model. In this talk, I perform a close reading of this climate simulation game alongside its 'paratextual' apparatuses, which mediate between the game's model and the meanings we attribute to it. I pick up on the manual's surprisingly philosophical discussion of the relationship between simulations, models, rules and games, as well as the way that it offers players the opportunity to insert themselves into a variety of scenarios, which import narrative implications from science fiction novels and contemporary news. I consider the implications of this for climate science's representation of the future through a set of possible timelines.

I argue that we must examine the role of the paratext—SimEarth's manual, but also IPCC summaries and narrative climate scenarios—in generating and sustaining a simulation's meaning and our interpretive frame. Comparing the manual's claims to a live playthrough of SimEarth, I suggest that the game's manner of relating simulation and scenario is similar to how real-world climate modeling is presented to the public. Is this different from how climate scientists conceive this relationship? How can simulations and models, synchronic systems of spatial cause and effect, ever be fully related to narratives, diachronic systems of historical cause and effect?

Living Timelines – The Transformation of the Mechanomorphic Animal
Hobin, Nicholas (University of Waterloo; nhobin@uwaterloo.ca)

Is it possible, in a video game, to depict animals authentically? That is, can they be represented as living, conscious beings, rather than mere extensions and possessions of humanity?

This question is complicated by the anthropocentricity of video games: virtual animals with which a player can interact are designed to benefit the player, whether as a tool, a resource, or an opponent. Even when aiming to simulate animals realistically, the processes of the game compel the player to consider the animal in terms of its triggers, behaviours, and rewards. Up close, every virtual animal is exposed as a deterministic machine.

Some games, however, take an alternate approach: they distance the animal by removing the players from the animal's time frame. In video games like Shelter 2 and Tokyo Jungle, to continue the game after a certain amount of time, the player's animal avatar must reproduce or raise its young to adulthood. One of these offspring replaces the player's avatar as the game continues.

This transformation encourages the player to recognise life not as a collection of independent instances of being, but as a continuous state of uninterrupted becoming. It emphasises renewal and flow as necessary ways to understand processes, identities, and creatures. I examine in this paper how the constant recreation of the player character in these games creates a continuity of being, which allows the player to consider the life of the animal not as a single disconnected instance, but as an endless transformation of bodies embedded in time.

"Collapse and Community Around the Ending of Game Worlds"
Chang, Alenda (UC Santa Barbara; alenda@ucsb.edu)

Collapse is a funny word. Etymologically, it means to slip or fall together, as when a house of cards tumbles into a loose pile. In ecology, collapse refers to system breakdown, or failure, and thus is often associated with a rhetoric of "the point of no return"—push a habitat or a species too far beyond its carrying capacity or abilities to adapt, and we may lose them entirely, no

matter what we do in the end. To put these senses of collapse side-by-side is to think, like Donna Haraway, how we may "stay with the trouble," cultivate response-ability and becoming-with, and, if we are going to fail, at least fail together.

Embedded in the term collapse is another, less punitive temporality, for a lapse is only a temporary interval, even as it more pointedly connotes straying into error and laxity of will. Environmentalist rhetoric exploits both time schemes (lapse and collapse), the latter to chasten us to action with the threat of the irreversible (e.g. the climate tipping point of 2 degrees Celsius), the former to forgive any past infractions as long as present action is directed toward averting disaster. The proverbial carrot and the stick.

Culturally, some of the most interesting representations of these dynamics occur in games, both analog and digital. In this presentation, I compare environmentally inflected games that either treat failure as a temporary setback or attempt to impose permanent death or otherwise irrevocable material alterations. I ask why has there been a renewed interest in "permadeath" and "legacy" gaming in a time when we are confronting "permanent" global environmental change? Referencing a variety of tabletop and computer games, including the cooperative board game Forbidden Island and the "sustainable" Minecraft-style game, Eco (Strange Loop Games), this presentation moves beyond the hermeneutics of apocalypse and postapocalypse already extensively documented in science fiction and the cinematic blockbuster, to consider ludic experiments in collective world collapse.

5H "Technoscience Seeing Itself: Practices of Scientific Vision After Nature"
MU229 Santa Cruz   **Chair: Andrew Pilsch**

This panel explores moments of self-vision or introspection in accounts of contemporary scientific and technological methodology to explore the fate of the scientific gaze in a post-natural world. In the absence of a putatively natural outside toward which science may look to explore the operations of the universe, that gaze has been increasingly cast upon the human shaped and the human created world. Given that this shift in vision is happening, this panel offers three modes for theorizing this inward vision shift in technoscience. Andrew Pilsch looks at infrastructure studies as a way of viewing the fecund technological world humans have built and ignored in their quest to manage a natural outside. Megan Poole explores Platonic theories of vision as they are currently applied in contemporary neurobiology, finding that this ancient Greek account of vision is actually a practice of self-vision. Joshua DiCaglio explores the increasing intersection of this work in scientific vision with older practices within the mystical tradition to argue for the convergence of mystic introspection and scientific inspection. All three papers document an involutionary turn in the scientific vision. Without a Nature opposite from humans to gaze upon, the future of scientific practice increasingly collides with these practices of self exploration in new and exciting ways. Our panel hopes to expand the awareness amongst humanistic scholars of science and technology of these new terrains and practices.

The Jungle of the Real: Hacking Infrastructure After Baudrillard
Pilsch, Andrew (Texas A&M University; apilsch@tamu.edu)

This paper considers the rise of infrastructure studies—scholarship that traces the materiality sustaining modernity—as a rebuttal to Jean Baudrillard's claim in "Precision of the Simulacrum" that simulation transforms the world into "the desert of the real." Focusing on infrastructure

challenges the argument that media technology evacuates the world of meaning and returns a simulated media object. As the frequency of accidents reveal the fragility of our modernity, scholars in the humanities are learning to see that in the place of Baudrillard's desert, a jungle has bloomed. In the tangle of cables, protocols, pipes, power lines, and standards, we find amongst our insecure modernity a new real that sustains Baudrillard's simulation. Thus, I conclude that simulation under the gaze of infrastructure studies is a way of seeing the biodiversity of our media ecology and for involutionarily uncovering the complex, ecodelic entanglements that structure our worlds and ourselves.

Neurobiology, Introspection, and the Recurrence of the Platonic Ideal
Poole, Megan (Pennsylvania State University, University Park; mup84@psu.edu)

The questions circulating among theories of visual communication involve what it means to see, what it means to know, and how neuroscientific research can pose answers to such questions. Yet the primary assumptions underlying this area of study, which neurobiologist Semir Zeki also terms "neuroesthetics," remain largely unexplored. More specifically, the work of neuroesthetics rests upon Platonic notions of constants, forms, or gestalts in the brain that allow for the categorization of sensory information based on past experiences. Yet, what exactly about Plato's Ideals are rhetorically appealing for contemporary neurobiology? This paper utilizes Zeki's primary work, Inner Vision, to argue that Plato's theory of vision offers a trope that he discovers in his own neurobiological studies, namely that any explanation of vision requires a practice of introspection, i.e. a way to examine the brain from the inside out. That is, any exploration of the neurobiology of the eye necessarily involves a practice of introspection so that the brain can bear witness to itself, its images, its blindspots, its entrenchments, its habits.

This is the Cosmos Seeing Itself: In-formation, Cybernetics, and the Faculty of Mystical Vision
DiCaglio, Joshua (Texas A&M University; jdicaglio@tamu.edu)

When the psychologist Richard Maurice Bucke described his experience of "Cosmic Consciousness," he articulated this transcendent vision as an evolutionary advancement in our modes of consciousness. This confluence between science and mysticism rewrites mystical vision as the development of an additional faculty of perception, an increased awareness beyond normal human capacities. This paper explores the subsequent development of this transhuman idea within science, where scientific articulations open the possibility that we might encounter some "beyond" of the human conceptual-sensory apparatus. I argue that science has continued to develop new articulations of the classic trope "know thyself" by more rigorously delineating what and who is doing the perceiving. The mathematician Franklin Merrell-Wolff calls this higher capacity "introception"-- a faculty he distinguishes from perception and conception, which involves a turning inward and observing differences within one's own state of consciousness. Similarly, the cyberneticist Gregory Bateson describes levels of learning as cybernetic loops. Bateson concludes that the higher forms of learning demand that we forgo the concept of identity. Who then is learning? The physicist David Bohm responds by arguing that such communication is a faculty of the Cosmos as a whole, as the total apparatus (a term he shares with Karen Barad) in-forming itself. Thus, Bohm remixes Carl Sagan's "We are a way for the Cosmos to know itself" with the classic Upanishadic "Tat tvam Asi"--thou art that--to

pinpoint the faculty for cosmic consciousness as the capacity to realize oneself as the Cosmos seeing itself.

5I: "Book Panel: Cambridge Companion to Literature and Science" *MU227 Pinal*
        Chair: Steven Meyer

In 1959 C. P. Snow lamented the presence of "two cultures": a seemingly unbridgeable chasm of understanding and knowledge between modern literature and modern science. In recent decades scholars have worked diligently to interrogate such claims of radical alienation between the sciences and the humanities. The newly-published *Cambridge Companion to Literature and Science* offers a roadmap to developments which have contributed to the emergence and demonstration of multiple reciprocal connections between the areas of study. Weaving together theory and empiricism, individual chapters explore major figures – Shakespeare, Bacon, Darwin, Henry James, William James, Einstein, Whitehead, Barbara McClintock; major genres – fiction, science fiction, poetry, dramatic works, science studies; and major theories and movements – pragmatism, critical theory, cognitive science, ecocriticism, cultural studies, affect theory, digital humanities, and expanded empiricisms. Adam Nocek and Katherine Hayles will comment on the *Companion*, and the editor of the volume, Steven Meyer, will respond.

Nocek, Adam (Arizona State University)
Meyer, Steven (Washington University)
Hayles, Katherine (Duke University; katherine.hayles@duke.edu)
Lamarre, Thomas (McGill University; thomas.lamarre@mcgill.ca)

5J "Roundtable: Science Fiction as Protest (II)" *MU226 Graham*
        Moderator: Doug Davis

From its inception, a sizable production of science fiction has been predicated on a sense of socio-economic, political, and temporal urgency. SF has often been a vehicle for protest through challenging us to think what would happen "if this goes on." Early SF editor/publisher Hugo Gernsback argued that SF was perhaps the only narrative form that could adequately prepare modern people for the rapidly-approaching technoscientific future, while postwar authors recall that SF was virtually the only vehicle of political dissent available to Cold War Americans. More recently, feminists, futurists, ecocritics, animal studies scholars, and others have used SF to rethink the necessary relations of science, technology, gender, race, class, and the natural world in both our own and possible futures. And just as SF writers and scholars recognize the genre's power to interrogate technoscientific developments and political structures, SF authors are frequently hired by governments and NGOs across the world when they feel it is time to think about science and society outside the box, and institutions such as ASU's own Center for Science and the Imagination explicitly commission SF narratives to address what they see as the most pressing issues of our day. These roundtables will consider SF as protest: how and why authors and readers turn to SF when they feel we are approaching a crisis either created or ignored by current institutions of power; and how SF authors and scientists alike use speculative tropes to make arguments for and against critical courses of technoscientific research and political action.

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

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5K "Temporal Scales of Animal Life" *MU224 Gila*   **Chair: Patrice Kohl**

On Dimensionless Time and Some of Its Forms

Reynolds, Peggy E. (Goldsmiths; P.Reynolds@gold.ac.uk)

"When adjusted for size and temperature, all organisms, to a good approximation, run by the same universal clock with similar metabolic, growth, and even evolutionary rates," or so says prominent theoretical physicist/biologist Geoffrey B. West. His research reveals that the number of beats performed by the mammalian heart (about) remains approximately invariant with respect to the size or lifespan of its owner. An elephant, for example, will experience the same number of heartbeats during its lifetime as will e.g., a shrew, and while the intervals will appear to humans to be of longer duration with say, twenty of the shrew's beats fitting into a single interval of the elephant's, the subjective experience of the cogent moment might be said to be equivalent for both mammals. In a similar vein, Stanley Salthe, another theoretical biologist, suggests that, to an entity the size of a city, with its necessarily extended cogent moment, a human would appear splayed out "as an amoeba with its center at, e.g., its bed and with its pseudopods being habitual trajectories." Both scientists employ dimensionless time and scale-invariance in their search for generic underlying dynamical mechanisms which act to constrain evolutionary processes. In so doing, they carry on the research tradition of renowned early 20th century biologist D'Arcy Thompson. On this, the hundredth anniversary of the publication of the latter's classic text, On Growth and Form, I explore some of the epistemological and ontological implications of the successful search for such universal mechanisms.

Managing evolution to help nature keep pace with rapid change: moral dimensions of proposals gene edit wildlife for conservation

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Scheufele, Dietram (University of Wisconsin-Madison; dietram.scheufele@wisc.edu)
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Debates about whether environmental changes are outpacing traditional conservation efforts put pressure on biologists to embrace more interventionist approaches. Recently, some biologists are proposing gene editing wildlife as a response to invasive species and extinction threats such as disease, low genetic diversity and climate change. Whether gene edited wildlife is an appropriate conservation tool is not just a scientific question, but one with socio-ethical implications that need to be better understood. Proposals to gene edit wildlife to achieve conservation goals adds new dimensions to familiar conservation practices. In this study, we analyzed results from a survey of 1,600 United States citizens to examine what might be important to people considering

the risks, benefits, and moral acceptability of gene editing wildlife as a conservation tool. People evaluating the moral acceptability of gene editing wildlife distinguished between application type. A majority rejected gene editing to reduce survival fitness in invasive species as morally unacceptable. In contrast, a majority accepted gene editing to increase survival fitness in threatened and endangered species as moral. Concerns about whether gene editing messes with nature also played a significant role in risk, benefit and moral evaluations. Opinion also varied depending on people's values. In particular, people who embrace science as an authoritative way of knowing were more likely to consider gene editing wildlife morally acceptable and likely to be beneficial.

Buying Time: Environmentalism and the Politics of Climate Change Mitigation / Adaptation
Rose, Andrew (Christopher Newport University; andrew.rose@cnu.edu)

The historically fraught relationship between the environmental movement and modern technology is well-chronicled and, in recent years, has been brought into further relief by the complex debates regarding best responses to climate change. From "back to basics" Transition Town movements to the BreakThrough Institute's advocacy for large scale geomediation projects, the position of many environmental organizations on various techno-fix options can be traced back to their core missions (and, in some cases, core funding). However, mainstream climate change environmentalism, as represented by key figures and organizations such as Bill McKibben's 350.org and the Sierra Club's "Beyond Coal Campaign," finds itself in a difficult position. How should these organizations and activists balance their advocacy for green technology with their reluctance to embrace techno-fix options aimed at adaptation to climate change that they worry will come at the expense of more immediate mitigating options? Through close reading of Naomi Klein's recent "This Changes Everything" and McKibben's earlier "Eaarth," along with recent activist and journalistic work, this paper will focus upon the politics of time in climate change and technology. More specifically, the paper will ask whether ongoing theoretical configurations of the humanist subject, human agency and linear temporality, particularly in the fields of Posthumanism and New Materialism, might help us examine and rethink the underlying assumptions currently motivating environmental positions on climate change mitigation and adaptation, as well as shed light on possible revisions or transformations to environmental activism's current relation to the techno-fix.

Animals, athletes and artists: how fundamental constraints on movement affect life
Wilson, Robbie (The University of Queensland)

Movement is fundamental to all behaviours. From cats chasing mice to artists painting masterpieces, individuals must choose where to move and how fast to do so, and these decisions ultimately affect the time and energy spent on activities and their eventual success or failure. But movement is constrained by the shape and size of the body, so that speed naturally trades-off against motor control or accuracy: the faster one moves, the more likely they are to misstep or fall. In this panel, I will show how the structure of the body results in this speed versus accuracy trade-off, and discuss how it affects the lives of wild animals, athletes, and artists.

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

5L "Performances of Disjunctive Temporalities" *MU225 Yuma*   Chair: Adam Zaretsky

Coupon Queens: An Art Piece that Unites Animal-rights, Socioeconomics, and Effeminaphobia
Morgan, Jesse (Tri County Technical College; morganmorgan8@aol.com)
Telfer, Mary (McHenry County College; mary@telfleur.com)

This 48" x 48" photograph, Coupon Queens, examines private spaces where animal-rights, socioeconomics, and effeminaphobia perform intergenerically. The artists dressed as animals are seated in a kitchen cutting coupons. Structural violence is referenced as is structural murder (out of camera range) in factory farms. At their feet are books intimating academia. Educational pursuits married to student debt has taken them from a wished-for sanctuary to a place of money concerns. The performers are aware of the effects of effeminaphobia in their lives as the viewers see poorly cropped and unconventional beauty queens. In the kitchen, Mary (in cow drag) references where cows end up after enduring horrific conditions on industrialized farms. The surreal environment is designed to underscore these conditions that humans accept in their visits to the grocery store. Jesse has donned 'butterfly drag' inserting a trans identity into animal politics. Jesse chooses this creature to gain protection under the favored being and embrace the feminine. Both artists meet the gaze of the viewer beckoning, "come into our queer space that inverts shame and castrates and brands." There is a doormat, a welcoming symbol, but it is also the burners of a stove. The scissors dissect coupons containing animal products, reminding viewers again of the socioeconomic status of the poor. Artistically the piece is inviting, but it is also satire, art as the slingshot and stone of David, now a cow and butterfly, who are sighting the giant. www.marytelfer.com

BioTemporality Comes Out: Biological Time Travel
Zaretsky, Adam (Marist College; Adam.Zaretsky@marist.edu)

Is transgenic technology a form of time travel? What is Biological Time Travel (BTT)? Is it making noisome the silenced genes from deep time? Is it reawakening extinct life forms and remixing archaic genes for future humans? Or is it permutating new genes infected into present day genomes to make the future? Considering alterity in genes that keep time, metabolic loops, circadian rhythms and glandular readings of spacetime, what does it mean to cut-up, recalibrate speed or silence body clocks? Is there a BTT aesthetics designed for the Anthropocene? Which direction should we craft novel lab-made mutant organisms and posthuman transgenic humans to coincide with the disappearing atmosphere, eroding topsoil and poisonous unlivability of our near future planetary crust? Should we make just-in-time survival bodies to live earthbound in a desperate postGaia unworld? Should we make human spore-like space invaders to populate the cosmos with fungal versions of our tormented species? Or is there an aesthetic potential to making bodies that exemplify celebration of suicidal excess, waste and denigration of heirloom, homegrown life? What could be the timeless contribution that we could leave as an effigy of our species? Consider an ode to denial of time and effect, an ode to blunted foresight, an ode to the narcissist's surrender of affect, or an ode to an impatient rushing magnetic inevitable: Sysiphisian mortal ruin.

The Mirror of Faith: How Genetically Hardwired Spirituality Can Save Some Time
Dragoeva, Boryana (Rossa) (Syracuse University; bori999@gmail.com)

"The Mirror of Faith" is an art and science project through which we are imagining a world where spirituality, faith, belief and dedication do not need to be carefully nurtured and proved through overcoming the temptations of the physical world, or the doubt (which takes time), but just the opposite, they can be embodied in a second through genetic modification, which can promise the right outcome. "The Mirror of Faith" is meant to provoke in a playful and humorous manner critical public dialogue about genetic research, exposing some issues the political and commercial promotion of this technology creates. The project is related to the research of the molecular biologist Dean Hamer on genetic predisposition of human spirituality. In his book, The God Gene, Hamer claims certain brain chemicals affect self-transcendence. The actions of these chemicals are linked to a gene called VMAT2 and its specific mutation in Intron 7 upstream of the VMAT2 gene coding sequence. Our initial attention as artists was caught by the media representation of this research and the controversies it contained within religious, secular and scientific circles. To reflect the central issue of embodiment and the harsh juxtaposition within nature/nurture argument, presented in media, we decided to create a literal illustration of these controversies and produce a genetically modified Transcendental Bacteria of Faith. Involvement with this "absurd scenario" is a re-thinking of the notion of "genetically predisposed faith," but also "faith" or "belief" in the media representation of science and religion.

Media Editing Tools Tweaking the Way to Time Travel
deCoudres, Kira (Hampshire College; kcd13@hampshire.edu)

Through the use of live media melting and philosophical poking of the malleable structure of time in audio-percept-o culture, deCoudres will explore meaning and nonsense in the romantic samplings of Claude Debussy and the ungrounded footwerk of DJ Screw in this talk and demo performance. Some questions posed are: How can alternative temporalities be accessed through applications of slow motion accelerationism? If history repeats itself, why do we fear the future? What is the role of dissociative maneuvers in mobile memorembylics? How temporally tethered are we? Is trauma blocking a worthwhile form of consciousness embolization, or simply more Transhumanism Tactics of Trauma Erasure? What is the relationship between repetition, difference, dynamism, and perceived staticity?

Workshop Session 5: "Investing in Futures, workshop 2" *Matthews Center 2ⁿᵈ Floor, MC218* **Facilitators: More&More Unlimited (Marina Zurkow and Sarah Rothberg)**
[you do not have to attend workshop 1 to attend this workshop]

This world-building workshop will ask you to imagine radically different possibilities for what the future could look like. Participants will choose randomly from a deck of cards containing parameters that could describe a society, such as government, food availability, and working conditions. Then, they'll work together to conceptualize, diagram, and craft artifacts from worlds that could meet those constraints — alternate realities that will perhaps spark solutions for our current one.

Participants will make prototypical "artifacts" that we create during the workshop. These will be put on display in an EPCOT/PF (experimental prototype community of tomorrow's parallel futures) vitrine in the gallery alongside museum descriptions.

Some things you can expect from the workshop are:

- Wild Imaginings
- Parametric Possibles
- Beverages and Snacks
- Future-Artifact Crafting
- A Glimmer of Hope

Workshop Session 5: "SLSA Creative Writers Read 3: Fiction and Poetry Out of Time"
The Virginia G. Piper Center for Creative Writing

In this creative session, fiction- and creative nonfiction writers will read from their work and discuss their artistic aims in relation to the conference theme, "Out of Time." As writers and scholars, we will consider how encounters with alien cultures can help us rethink our notion of time; how writers can make the needs of our suffering environment real; how interactions with animals can help us to understand our place in the world; and how craftspeople create musical instruments. Readers and writers of fiction, poetry, and creative non-fiction are welcome to attend and join in the discussion.

When We Ignore the Warnings of Environmental Science
DeBaise, Janine (SUNY College of Environmental Science and Forestry; jdebaise@gmail.com)

The environmental crisis is upon us, and we're running out of time. How can writers help convince the public that it's essential to listen to scientists and take action on environmental issues?
Janine DeBaise will read a creative piece with an environmental theme. She'll talk about some personal experiences, like the oil spill on the Saint Lawrence River that she witnessed back in 1976, when a barge ran aground and spilled 300,000 gallons of oil into the river. She'll describe camping with her children in the sand dunes of Lake Michigan, and witnessing all the pollution pouring from the smokestacks of Gary, Indiana. She'll describe paddling down the Hudson River with her youngest son as part of the Two Row Wampum Campaign carried out by the Onondaga Nation and their allies: two lines of paddlers, native Americans and allies, paddled from Albany to New York City to raise awareness about native issues and water pollution. And closer to home, she'll talk about the walking the beaches of the Long Island with her younger sister, just after her sister had a mastectomy, and the ways that breast cancer has been connected to environmental issues.
Her over-arching theme is that we ignore environmental science at our own peril: we risk losing the places and people we love.

The Long Garden
Hudson, Andrew (Arizona State University; andrewhudson@asu.edu)

Andrew Dana Hudson will read from his in-progress fiction piece, *The Long Garden.* This story explores the sustainable, peaceful world that may be possible on the other side of our present social and environmental turmoil—and the difficult work of maintaining that fragile balance through the black swans and upheavals brought by history. In *The Long Garden* a centuries-long conversation across the cosmos is disrupted, with multigenerational consequences for earthly politics. This work argues that cycles of reform and decadence are unavoidable in human civilization, and thus the utopian project should focus on cultivating those cycles like a garden, injecting more wisdom into each iteration and shoring up against collapse.

Art, Woodworking, and Musical Instruments
Karl Zuelke (Mount St. Joseph University; Karl.Zuelke@msj.edu)

Friday, November 10, 2017, Session 6: 4:00 PM – 5:30 PM

6A "Engineered Futures: Rivers, Robots, and Reproduction" *MU236 Mohave*
        Chair: Bill Hutchison

When we anticipate the future we are usually in the mode of optimism ("things are going to get better") or, perhaps more often lately, in the mode of anxiety that makes dystopian fiction feel "realistic." And perhaps in general we tend to think that whether the future will be better or worse, it will certainly be different. Our panel suggests, in contrast to that common sense, that future work, imagining and planning future forms of life, operates more often than we might think not to constitute difference but to stretch out and continue the present and the past. The papers that make up this panel map connections among disparate phenomena, all of which are situated in the present yet oriented towards the past or future. A plan to remake the Mississippi flood plain; a demand for an end to embodied human reproduction; and an evolutionary history of machine life at first look like disparate interventions in distinct problems. Yet their relationship to time, tempo, and tense is analogous. Each paper raises questions about projects that imagine the future by staking a claim to a kind of natural continuity. The futures considered here are interruptive, estranging, accelerated. And yet, we argue, they nonetheless reveal commitments to continuity, to recognizable temporality, in order to integrate themselves into "natural" systems. Reading these papers against one another, we ask: What is the relationship between naturalizable futures and renaturalized pasts?

A future but not ours, or, feminist science fiction's work against reproductive futurity
Strang, Hilary (University of Chicago; hstrang@uchicago.edu)

In 1970 Shulamith Firestone proposed a plan for human liberation that turned on two anticipations of a technological future: Automation, advanced by cybernetics, would end the need for work; artificial wombs, along with genetic manipulation, would finally decouple biological sex from reproduction, freeing women from the supposedly natural demand to participate in the array of labors (affective and otherwise) that make up social reproduction. There has been something of a contemporary revival of interest in the first of those demands around work, from left accelerationists and libertarian futurists. But the feminist demand for a non-reproductive futurity remains, as they say, utopian, despite recent work in biomedicine and biotechnology that might look promising for such a project (for example EVATAR, the so-called

'menstrual cycle on a chip'; the 'biobag' artificial womb for premature lambs; the increasingly sustainable life of embryos in laboratory conditions). This paper considers the temporalizations of life, of living aimed at the future, implicit in Firestone's plan, as well as in projects like EVATAR and contrasts them with the futures not amenable to futurism, prediction, or reproductive continuity that feminist science fiction theorizes. Joanna Russ's The Female Man (1975), Marge Piercy's Woman on the Edge of Time (1976) and Octavia Butler's Wild Seed (1980) produce accounts of being alive, living on and living in relation that refuse the consolations of survival, generationality, and progress. In so doing, these novels offer a critical transformation of Firestone's optimistic project and a theoretical opposition to the neoliberal accounts of a future good life that constrain liberatory projects in our current moment.

Toward a New History of Robot Futures
Hutchison, Bill (University of Chicago; hutch@uchicago.edu)

From *Wall-E* to *Westworld*, robotic entities are produced by institutions to further institutional goals. Coined in 1920 by Czech playwright Karel Čapek, "robot" translates to "slave labor." I argue, however, that the literary and filmic robots of recent decades demonstrate the emergence of a new entity, one whose historical trajectory is based less on slave labor or technological advancement than on emerging conceptions of personhood. On this reading, the robot is not only an instrument or representative of the corporation—it is also a literal body able to both impact the material world and to undertake reciprocal relations. My paper argues for a new way of thinking about robot futures by reconceiving their history as evolutionary: heritable characteristics changing across generations, with human activity standing in for natural selection. I explore this history through two mutually imbricated discourses: first, recent efforts by theorists like Roberto Esposito and Barbara Johnson to interrogate the dualist logic pitting persons against things and, second, the legal history of corporate personhood, particularly as it comes to bear on the cultural imaginary of the robot. By mapping the evolution of the corporate robot, I show how the embodiment of corporations in robots has produced a non-biological form of life that exceeds the corporate enterprise while also making untenable the ontological distinction between persons and things. Today, the robot demands to be accounted for, not only in its symbolic register, but as a defiant species of emergent ontology whose futurity is intimately entangled with our own.

Which Way Does the River Run? Past and Future on the Mississippi
Burnett, Hannah (University of Chicago; hburnett@uchicago.edu)

What visions of the past and future are entailed in environmental restoration projects? How does the scope of these visions change experiences of the present? This paper considers restoration of the Mississippi River as a practice that is always oriented in and towards time, seeking to recuperate a "better" or "natural" past into plans for an unstable future. The Mississippi River had already been slowly forming its own delta for thousands of years when humans began to modify its course in the late nineteenth century. The river once carried silt from its entire watershed to its mouth at the Gulf of Mexico; over time, these sediment deposits built up into the landscape of present-day Louisiana. However, hundreds of years of levees and forced channelization have impeded the river's meandering course, curtailing its tendency to flood silt-rich waters across a growing landscape. The effects of these engineering projects have exacerbated land-loss in a place already threatened by climate change and aging industrial

infrastructures. As a result, the state of Louisiana has planned a series of experimental projects designed to mimic the effects of a "natural" delta ecosystem, with the goal of protecting and rebuilding land. But how can such carefully designed, retrospective interventions recreate the effects of an ecosystem from another time? Here, I argue that examining desires to artificially reproduce the river's delta elucidates the specific concept of time at work when plans to create a predictable future rest on an idealized past.

6B "Biopolitical Thought and Ecological Thought: The Emerging Conversation" Papers from the Society for the Study of Biopolitical Futures *MU228 Cochise*
      Chair: Cary Wolfe

Externalities and the Nuclear Absurd-Sublime
Seshadri, Kalpana (Boston College; kalpana.rahita.seshadri@bc.edu)

Non-scientific disquisitions of neoliberalism and the contemporary global economy invariably find their political and moral grounding by referencing climate change and the negative environmental consequences of economic growth. One of the logical encumbrances of this approach is the bio-political concept of Capitalism itself as a totalizing and irrefutable system that nevertheless must be opposed. The epistemological challenges taken up in this paper are methodological and attitudinal. The methodological questions are: a) how can bio-political critique serve as the barometer of the way in which the contemporary *episteme* functions to separate economy, ecology, the ethical and the political as so many "*calculably indeterminate*" interests? This is not mainly an archaeological (exhuming the rules of discourse) or a genealogical (tracing shifts) project, but an instrumental (measuring) one focused on separations. b) Instead of looking at discursive rules or shifts, we activate discourses to think with each other—in this case economic theory in a relation of pressure with ecological concepts—in order to de-form and re-form old objects of critique, and if we are "lucky" proliferate new ones. Pressure entails nodal points, and the one taken up here is the de-formation of Externalities in relation to nuclear power generation. The other epistemological challenge is attitudinal and pertains to comportment: hanging on for-dear-life to the absurd at the heart of the sublime and honoring the sublime at the heart of the absurd. This paper confronts these challenges through the concept of externalities—mainly "spent" nuclear fuel and radioactive waste—generated by nuclear power as a "discourse reactor." Rather than focus on conventional questions of time and responsibility (the ethical and political perspective) or security and danger (the practical and scientific perspective), this paper investigates what discourse communities (economic and environmental) mean when they talk about nuclear waste as an externality, and how they talk about it, i.e. with what effects? In other words, what kind of discourse activity gets radioed when the so-called externalities of nuclear power undergo fusion? By resolving to answer this question with a modicum of certainty, this paper argues that we will be saved *in perpetuum* by the absurd-sublime.

Nuclear Necropolitics
Schwab, Gabriele (University of California, Irvine; gmschwab@uci.edu)

"Nuclear Necropolitics" traces the entanglement between the biopolitical and the psychopolitical in the uses and abuses of nuclear power for warfare and/or energy production. My presentation draws on Achille Mbembe's seminal concept of necropolitics in order to explore this

entanglement and outline the most basic specific features of what I call nuclear necropolitics. I also revisit some of the classics on nuclear politics (Jonathan Schell; R. J. Lifton) in light of current debates about limited nuclear war and the emergence of a new arms race.

Bell Frogs in the Brick Pit: Flourishing in Toxic Zones of Abandon
Kirksey, Eben (University of New South Wales, Australia; eben.kirksey@gmail.com)

Multiple species of endangered frogs are flourishing in polluted areas. As a microscopic fungal disease is sweeping through amphibian populations, driving many frogs and salamanders extinct, some species are finding refuge in toxic zones of abandonment. Post-industrial landscapes awash with dioxins and heavy metals, have become emergent ecosystems for amphibians that have vanished from areas protected by conservationists. Green and Golden Bell Frogs, an endangered species, live in the Brick Pit of the Sydney Olympic Park, an area of urban renewal once surrounded by chemical industries, a fuel terminal, an oil refinery, and a prison. Building on calls for new forms of collaboration in cultural anthropology, I formed an interdisciplinary team with biologists to study possibility that toxins of the Brick Pit have the indeterminate properties of Isabelle Stenger's pharmakon. The pharmakon is a poison that can become a cure, a substance with unstable attributes. We considered the possibility that dioxins and heavy metals can cure Bell Frogs infected with pathogenic chytrid fungi. Drawing on tricks from the Tactical Media movement, making creative and rebellious uses of standard scientific techniques, we studied the contours of microbial ecosystems with microscopy and environmental DNA protocol. Artifacts from our experiment in sensing microbial communities living in toxic sediments will be showcased in this paper. Fragile bubbles of happiness, worlds, have emerged at the intersection of oblique powers. Sudden shifts in political and economic systems, or emergent practices of environmental management, could shatter these ephemeral and unstable ecological assemblages.

6C "Temporality, Feminist Response-ability and Capital Accumulation" *MU240 Navajo*
      Chair: Gloria Kim

If, as Tom Cohen writes, "The Ponzi scheme logics of twenty-first century earthscapes portray an array of time-bubbles, catastrophic deferrals, telecratic capture, and a voracious present that seems to practice a sort of tempophagy on itself," how are we, as feminists to respond? This panel explores the sense of being out of time, accelerated time, ruined time, and proliferating time, in capitalist-induced contexts of ecological crisis. It examines the experience, making, and reshaping of time across geology, technology, biology, and capital with a focus on plastic ecologies, geoengineering, and bioaccumulation. Bridging a diverse range of theories, such as ecofeminism, the anthropocene, posthumanity, and speculation, individual papers in this panel explore, respectively, the durability of our plastic inheritances and what that might mean for thinking with uncomfortable and intractable legacies of extraction, power, ecology and subjectivity (Davis); panicked, masculinist and bellicose rushes to "save" Earth systems presumed to be predictably at loss and in need of human rescue in a context of ecological urgency (Brault); the accumulation and acceleration of time in the biological constitution of microbial life (Kim). Here, time seeps through planetary striations, burrows in and through subjectivity, and multiplies in particle matter.

Uncomfortable Inheritance
Davis, Heather (Penn State University; heathermargaret@gmail.com)

My grandfather was a manager at DuPont for his entire career and I grew up immersed in stories of plastic fabrication and their introduction into commodity culture. Plastic is a condition of possibility for my own personhood, both personally and structurally. It is an inheritance that has enabled certain forms of privilege and which constitutes life in the twenty-first century. Inheritance is primarily used to speak of property relations. It is defined, in the OED, as the 'succession to property, a title, office, etc.' The fact that we speak of inheritance in these terms, of right, of possession, of property, is a strong indicator of the ways in which the western, modernist project conceives of intergenerational time. My story of plastic is one of relative wealth, privilege, power and the imbrication with the modernist project of expansion and extraction. It is this story of propertied inheritance – in both the material goods that are passed down to me from my grandparents and in the larger infrastructures and materials that are not directly 'mine' but that constitute my personhood, and all of our subjectivities, through the proliferation of materials such as plastic – that I will explore in this talk, thinking through and sitting with the uncomfortable legacies that constitute our being. How, then, do we begin to situate a feminist response-ability, as Donna Haraway has called it, to these broad lines of connection, from our ancestors to our descendants, especially when these are stories we would rather disavow?

Ecological Urgency, Manhood and Capitalocentric Bellicosity
Brault, Claire (Brown University; claire_brault@brown.edu)

In August 2016, environmentalist Bill McKibben came up with a new sort of war rhetoric to add to the many wars of our urgent times: the "war on climate" joined bellicose rhetorics' proliferation, alongside the war on poverty, the war on drugs, the war on terror. In 2009, inventor of Gaia theory James Lovelock argued that ecological emergency justified limiting democracy in favor of "blood, sweat and tears," manly determination and possible geoengineering. In 2012, billionaire and self-proclaimed "new environmentalist" Russ George estimated that his "philanthropic" experimenting in the Pacific ocean, dumping 120 tons of iron sulfide there for geoengineering purposes, was an urgent, legitimate, direct action that could "save the planet" – while potentially earning him lucrative patents and carbon credits. These drastically different figures (an activist, a scientist, a billionaire) share more than their concerns about global ecological devastation and a sense that "we" are "running out of time." In this paper, I argue that, though their ecological commitments are of a vastly different breed, they are exemplary of a common though diverse and contradictory temporal landscape. I call this landscape "uchronia": images of the "good" (idealized) time (eu-chronos), the atemporal time (ou-chronos), animate these bellicose rushes. "Uchronia" refers to temporalities of: relentless acceleration and linear progress; infinite growth (for some) on a planet with finite resources; untenable, unattainable, impossible futures that subject our concrete, more-than-human times to masculinist, bellicose and capitalocentric imaginaries.

Transnatural Microbes and the Future Form
Kim, Gloria (Cornell University; gloriakim.cs@gmail.com)

Not long ago microbes were understood to be discrete and bounded entities containing isolatable material. However, recent reframings of microbial life suggest that microbes might better be thought of as "transnatural" objects – ever-changing entities that index the inextricable

enmeshments of natural and manufactured systems, and of living and non-living materials and processes. They are constantly sedimenting accumulations of past and present matter, and natural and manufactured processes that perpetually rewrite, through mutagenesis, their possible future forms. Elsewhere, I have explored the transnatural microbe to examine the changing contours of an anthropocenic biopolitics. This paper, however, draws from the work of Hannah Landecker, Joseph Masco, Melinda Cooper, and Heather Houser to hone in on the temporal dimensions of transnaturalism. Focusing on three themes – transnaturalism, mutation, and speculation – this paper explores the temporalities of microbes in three separate but interlocking vignettes. In "Transnaturalism," I ask after the mixed temporalities inherent in the mixed material constitution of microbes; "Mutation" examines the dynamic that loads the capacities of future disaster into microbes' present forms; "Speculation" addresses how the varied temporalities of microbes are channeled into the accelerated temporalities of speculative biocapital. How might we understand the transnatural microbe as matter and process of historical sedimentation and material accrual? How might we now think of microbes as witness to histories ecological (in its environmentally, biologically, and technologically expansive senses) catastrophe??

Panel Respondent
Behar, Katherine (Baruch College, CUNY; kb@katherinebehar.com)

Katherine Behar is an interdisciplinary artist whose works exploring gender and labor in digital culture have appeared throughout North America and Europe. Behar is the editor of Object-Oriented Feminism, coeditor of And Another Thing: Nonanthropocentrism and Art, and author of Bigger than You: Big Data and Obesity. She is assistant professor of new media arts at Baruch College, CUNY. Behar writes and lectures widely on object-oriented feminism, technologized labor, cyborgian ethics, feminist media critique, and decelerationist aesthetics. Behar is the recipient of fellowships from The MacDowell Colony (2013), Art Journal (2010-2013) and the Rubin Museum of Art (2011). From 1999-2003, she was a founding artist and organizer at The Spareroom, a time arts cooperative in Chicago. Her artwork has been supported by art grants and awards from the U.S. Consulate General in Leipzig, the Franklin Furnace Fund, the Illinois Arts Council, and the Cleveland Performance Art Festival. Additionally, she has received research funding and academic grants from Arizona State University, PSC-CUNY, Baruch College, New York University, and the School of the Art Institute of Chicago, as well as a sub award from the National Science Foundation. Behar holds an MFA in Combined Media from the Department of Art at Hunter College, an MA in Media Ecology from the Department of Media, Culture and Communication at New York University, and a BFA in Studio Art from The School of the Art Institute of Chicago.

6D "Digital Lives: All We Have Is Time" *MU242A Lapaz West*
Chair: Meredith Hoy

Living Memory: Nostalgia and the Digital Archive
Hoy, Meredith (Arizona State University; Meredith.hoy@asu.edu)

The ideation of "home" or "homesickness" is embedded in the pathology of nostalgic longing. However, if the association with "home" is reoriented to a temporal axis, the irrevocable separation from "home" maps onto the experience of irretrievable "pastness." Nostalgia is a

longing, in its virulent incurability, for a past that never existed. It is a past that was given form through the externalization of individual memory into a collective, social memory. As numerous theorists and media scholars have proposed, time, experienced individually and collectively, is in fact "fabricated" by technics. Traditionally, the aim of the archive was to "stop time," rendering its contents inaccessible and inert. In digital memory systems the preservation of the archive is dependent on refresh rates, constant updates, and running and rewriting programs. In the digital archive, pastness and present are cast into a recombinatory field of data. Time becomes increasingly multi-layered and fragmented. Nostalgia, which relies on the unbridgeable distance between an artificially stabilized utopia and a chaotic, dystopic present, becomes confounded and radically destabilized. The past and its simulation by the mechanisms of nostalgia are brought out of stasis and rendered mutable. When the shape of time is reconfigured by technologies of information transmission and communication, the nostalgic image is revealed as an empty sign or a floating signifier—a simulacrum of an imaginary past, it becomes a tool of disavowal, permitting evasion of social responsibility for the multitude of individual and collective pasts that have been replaced by historical fiction.

Excavating the Archives
Henderson, Ethan (Georgetown University; ethan.henderson@georgetown.edu)

Digging through history is like archaeological excavation. The process may get dirty, but you'll find curious stuff the more you dig. For historical research at any level, there is no substitute for direct interactions with primary sources that enable a researcher to literally handle history. You can touch, see, smell, and hear the effects of time. The interactive experience pulls a researcher "out of time" by sensing an object in three dimensions, as it carries clues about those who cared enough to make and use it, buy or sell or save it: how and why and when and where. The word "curate" derives from "care." In this presentation, I will speak about my work as a curator and librarian who works to cultivate care about rare materials by collaborating actively with faculty and students to excavate the archives. I will describe different pedagogical collaborations, where faculty and students select physical objects from Georgetown's special collections and translate them through different media: from traditional research and writing, to object biographies, to digital curation and remediation, to other cross-disciplinary methods. Students learn not only from the objects themselves, but also from different methods of research, literacy, remediation, curation, translation, collaboration, and other approaches. Assignments frequently cross disciplines, media, critical and creative boundaries. As we work together in the archives, students are able to experience first-hand the affordances and limitations of newer media to convey older formats, raising questions about how the artifacts of our current moment will become the future stuff of history to excavate.

Jane Austen's Prolonged Now: The Digital Life of Austen's Work
Caddy, Scott (Arizona State University; scaddy@asu.edu)

Jane Austen's novels have been adapted, appropriated, and re-imagined across TV, film, and popular fiction alike. These have prolonged Austen's presence long past her life and death, perpetuating her "moment" across centuries. Digital adaptations and remediation of Austen's work, specifically *Emma* and *Pride and Prejudice*, present a unique problem in studying literature and adaptations out of (and within) their respective contexts. In this proposal, a look at

Austen's afterlives across media will question how "in" and "out" of time her work is; in other words, how has her work been treated, in terms of adaptation and criticism, with regard to past and contemporaneous contexts? In what was have Austen's works both reconciled and challenge our concepts of past and present as film, TV, and digital media have constantly re-introduced, re-interpreted, and reiterated her work? Using *Emma Approved* and *The Lizzie Bennet Diaries* as focal points, the concepts of digital temporality and the "Long Now" will be contrasted to challenge our imagination of time when centuries-old works are treated as present-day pop culture phenomenons.

The Dead Living: All We Have is Time
Vigliotti, Jeanette (Virginia Commonwealth University; vigliottij@vcu.edu)

The cyborg of the late twentieth century is confounded by digital life. As a trope, the cyborg lacks a substantial connection to temporality and desire—two key components to living on Facebook. Due to the textual nature of the platform, I conceptualize Facebook's temporality as "dead-living," a nonhuman rendering of time. Writing and photography have been theorized as both harbingers of death and preservers of life, straddling the boundary between living and dead. Users employ these haunted representational forms to report daily life to the social network. The "Timeline" function allows users the ability to jump forward and backward in their own lives as well as the lives of others. Moreover, this temporal blur occurs with the assistance of non-human actors in the form of code and algorithms. I find the trope of the cyborg is not enough to explain the desire to move through time in this way. As a monster, the cyborg does not occupy the collapsed boundary between life and death that is inherent in text and photography. Other monsters, like the zombie and vampire, could continue to decenter the myth of autonomous human. Perhaps these monsters of collapse could explore new matrices to better address the networked world in which humans navigate the collapse of life and temporality in concert with non-human digital actors.

6E "Simondon's Out-of-Step Ontogenesis II" *MU 242B Lapaz East*
        Chair: Maryann Murtagh

Gilbert Simondon (1924 - 1989) is a French philosopher of individuation and thinker of technical objects and their internal modes of existence. In a paper translated into English in 2009 entitled, "The Position of the Problem of Ontogenesis," Simondon describes the process of individuation in relation to the preindividual, individual, and transindividation. Interestingly, he argues that an individual's reality only occupies a certain phase of its whole being (i.e., it does not include its preindividual potentialities or transindividual collective formations). For Simondon, individuation does not exhaust all the potentials but rather forms one part of the ontogenetic process in the development of something larger. In other words, individuation is the process of being as the process itself unfolds. The curious thing about this process is the way Simondon describes the ontogenesis of the individual as having the capacity to "fall out of step" with itself. He describes the preindividual being as the being in which there are no steps at all. Individuation is never a step or stage or synthesis or return to unity but the being passing out of step with itself through the potential incompatibilities of its preindividual center. This is an ontogenetic perspective in which time is the expression of the dimensionality of the being as it is becoming individualized. The purpose of this panel is to think through Simondon's phrase "out of step" in

relation to his theory of the process of individuation and to consider theories of time that might emerge from it.

Beyond Hylomorphic and Entropic Constraints: Simondon and the Ontogenesis of the Earth, Moon, and Life

Dahiya, Annu (Duke University PhD Candidate; annu.dahiya@duke.edu)

This paper focuses on Gilbert Simondon's theory of ontogenesis and scientific theories about origins of the Earth, the subsequent creation of the Moon, and the geophysical, chemical, and biological evolution of life. While ontology focuses on studying being or "what is" (i.e. a static identity), ontogenesis allows us to think with the unending and ever changing processes that constitute "what is." Ontogenesis is therefore better equipped to theorize the origins of the Earth and Moon (as well as life). Furthermore, it also provides a rethinking of central philosophical concepts such as the relation between "form" and "matter"—an important relation when thinking about "origins." I also examine the relationship between Simondon's concept of the "preindividual" and its possible connections to the origins of life. Elizabeth Grosz reminds us that the "preindividual" is "neither localizable nor temporal but the condition under which we may come to understand space, place, and time." Because it can never be exhausted, the preindivudal is out of time in that it is before and always in excess of temporality. I end with an exploration of how Simondon's philosophical project complicates (and perhaps puts to rest) the often repeated question in philosophy of biology of whether life "violates" the second law of thermodynamics (which states that the total entropy of any given system must increase over time). While we should not abandon this line of thinking, Simondon allows us to ask much more integral and provocative questions about the energetic potentials and capabilities of any metastable system.

Thinking Quantum Time-Crystals Through Simondon's Philosophy of Ontogenesis and Metastability

Murtagh, Maryann (Duke University; maryann.murtagh@duke.edu)

In 2012, Nobel-Prize winning theoretical physicist and MIT Professor Frank Wilczek wrote a letter entitled "Quantum Time Crystals." His piece speculates the possibility for crystalline structures to break time-translation symmetry in a closed quantum mechanical system. The time-crystal is an open system in non-equilibrium with an environment that exhibits movement without energy. In other words, the crystal pattern repeats in time rather than in space suggesting perpetual motion or rotation but at a "ground state" or with zero-energy. Like space-crystals, time-crystals are naturally asymmetrical and change structure depending on the position of the observer. Following Wilczek's lead, two teams of physicists -- one at the University of Maryland, and one at Harvard -- have been working on the concrete possibility of creating time-crystals in a laboratory environment. In March 2017, both teams published their successful findings in the journal Nature. These papers focus explicitly on re-creating time crystals as a form of non-equilibrium matter and how this might affect the future of quantum-computing. Alternately, the purpose of my examination is to think time-crystals in relation to ontology; more specifically, to twentieth-century French philosopher Gilbert Simondon (1924-1989) and his theory of ontogenesis. Simondon thinks crystals outside equilibrium and non-equlibrium by invoking the concept of metastability from thermodynamics. For him, the crystal-formation is a

primary example of metastable equilibrium which individuates through modifications of the system like pressure and temperature. My goal is interrogating Simondon's writings on crystalline structures and to consider how Wilczek's quantum time-crystals works in relation to Simondon's theory of individuation.

Response to Simondon's Out-of-Step Ontogenesis Panels
Hansen, Mark B.N. (Duke University Professor of Literature; mark.hansen@duke.edu)

6F "Alternative Temporalities of Computer Gaming" *MU 246 Coconino*
          Chair: David Rambo

What kinds of time are computer games capable of representing? What are the temporalities of games that go against the grain of what is expected or perhaps even possible in a computer game? This panel investigates temporal possibilities in addition to the player's stream of consciousness and the immediate presentation of game time through audio, visual, and tactile interfaces. The point of this inquiry is not to undercut such typical phenomenological descriptions of gaming, but rather to connect them with a wider range of temporal bandwidths, perspectives, and potentials. These may include hardware runtimes, embodied reflexes and neural plasticity, speedrunning, recurrent and structural causalities, or historical fiction and the representation of the longue durée of history. How might the various rhythms of computer games stage new and renewed philosophical and aesthetic inquiries into causality, narrative, history, and time itself?

Playing the Longue Durée: Deep History and Sid Meier's Civilization V
Gaffney, Michael (Literature, Duke University; michael.gaffney@duke.edu)

My paper addresses the successes and limitations of Sid Meier's popular historical strategy game, Civilization V, in terms of its temporal representation of history. I suggest that while this turn-based strategy game offers a sense of what Fernand Braudel once called the longue durée, there is a striking absence of deep history. The concept of deep history may refer to human history before agriculture and writing, but may also refer to environmental history, both of which have become newly relevant with the discovery of climate change. Such history goes entirely unrepresented in Civilization V; the game begins many thousands of years after homo sapiens emerged, and the environment itself serves merely as an unchanging backdrop on top of which the game unfolds. The absence of deep history in a game as historical as Civilization V, I argue, teaches us something about the representational challenges that the particular temporality of deep history poses, both in general and for game design in particular.

Sisyphean Software: Cycling through the Absurd Joy of Dark Souls
Rambo, David (Duke University; dnr5@duke.edu)

There is a Sisyphean absurdity to the computer game's typical ludic form: playing and replaying a level or task lacks meaning beyond its own internal mechanisms, such that the struggle itself provides the measure of its own value. Famously challenging games by developer From Software exemplify the joyful absurdity to be found in ludic repetition. Demon Souls, Darks Souls, and Bloodborne all incorporate the repetition of playthroughs into a cyclical narrative that

resets the game state upon death. Rather than a finite amount of lives for retries, a pool of souls—the material of past experiences and of in-game experience points collected from defeated enemies—is left at the site of death to be regained. Dark Souls' in-game fiction dramatizes more than the cyclical temporality of this learning process, of Sisyphus in Albert Camus's work, or of Nietzsche's eternal recurrence. It also dramatizes the programmatic structure of the computer game itself: each playthrough affirms its data's latent potentiality for execution and its past instantiations. Sisyphean software like Dark Souls teaches us that gameplay is not the playing of a game, but the playing of an instrument that superposes timings across hardware clock cycles, execution of multimedia files, and the input-output rhythm of interfaces. It lacks a transcendent principle to guide it, being nothing more than the constant redoing that instantiates its existence.

6G "Machinic Media" *MU238 Apache*   **Chair: John Johnston**

Game-ification of Art in the Posthuman Era
LaGrandeur, Kevin (NYIT and Institute for Ethics and Emerging Technology; klagrand@nyit.edu)

For some artists, the posthuman era has brought changes to how art is produced, under whose agency, what human art means, and even what being human means—given the blurring of how we define the concept of "human" in a rapidly changing posthuman environment—one in which humans and their technology increasingly merge. My presentation will explore this phenomenon with particular focus on how artists have combined elements of the posthuman with digital gaming, itself arguably a posthuman phenomenon, to make art that at once reflects and comments on the increasing pervasion of our society by emerging technology. Siebren Versteeg's work is one example of this. His artwork essentially consists of playing a two-part game that consists of creating an intelligent agent, a surrogate artist, by coding a painting program that then begins painting; the game continues as the program subsequently paints and he chooses a randomized point to end the production process for the final work of this symbiotic act. Ian Cheng, who actually programs a gaming engine to generate his self-evolving video art, has stated that his art is like a "video game that plays itself" (Greenberger, 2016). Other artists whose work is similar in its inclusion of posthuman elements and game-ified processes include Guy Ben-Ary, Hannes Bend, Stelarc, Oron Catts and Ionat Zurr, Brian Cantrell, Rafael Fajardo, and Margaret Dolinsky (many of whom are SLSA members). The irony of the artists' displacement by the technological agents they use is just one way this sort of art comments on the posthuman nature of its making. My talk will investigate this as well as what else this sort of art says about how the posthuman has affected us.

Machines at the Speed of Light: Nonhuman Velocity/Temporality of Cybernetic Immanence
Rahebi, Mohammad-Ali (Shiraz University; ali.rahebi@gmail.com)

Microsoft's Bill Gates once published a book entitled Business @ the Speed of Thought. This was in 1999; although not so far ago, the growth of cybernetic technics has been drastic enough for this statement to become obsolete. Thought itself is inefficiently slow in the scales of current computational machines and in the shadow of a post-2008 presence of High-Frequency-Trading algorithms and deep neural networks, we must instead speak of machines working at the speed of

light (Stiegler's phrase describing the author's subject at a previous conference) to actually sound relevant. Bergson defined consciousness as duree, a duration that that is now reinterpreted as delay. The anxiety provoked in human beings in competition with machines has caused dark fantasies of a post-apocalyptic world where you wake up one day and everything is completely changed: will you adapt quickly (like a cybernetic machine to changes in its environment) or will you die? The human body imposes certain biological constraints on us that make higher velocities, certain temporal dimensions inaccessible, and certain feats such as instantaneous de-habituation or absolute flexibility impossible. In this presentation, I will first briefly touch upon my previous work to show how and why cybernetic machines are revolutionary different than "technics" in general (and point to a basic flaw in Heidegger's interpretation of cybernetics) and how their essentially non-representational nature implies an inhuman temporality and an inhuman form of flexibility/creativity that creates very concrete problems in all our lives now and in the near future.

The Techno-Politics of Swarm Systems
Johnston, John (Emory University; jjohnst@emory.edu)

In various contemporary discourses, swarm systems have taken on a singular importance, not only in their scientific denotation as a multi-agent, highly distributed form of collective intelligence, but also as an image of collective, anarchical force. Hardt and Negri (in Multitude) are struck by Rimbaud's use of a swarm image in his description of the attacks on the Paris Commune, but today the reference more likely evokes the technique of Distributed Denial of Service deployed by Anonymous to target and render inaccessible certain politically problematic websites (such as that of the Church of Scientology). In The Uprising, Franco 'Bifo' Berardi explains another sense of the swarm system's relevance: "When the social body is wired by techno-linguistic automatisms, it acts as a swarm: a collective organism whose behavior is automatically directed by connective surfaces". Significantly, swarm systems appear in a number of techno-thrillers –in Daniel Suarez's trilogy on autonomous technology (Daemon, Freedom, and Kill Decision), for example. In these instances swarm systems usually exhibit a double valence: when applied to the individual, they are a figure for subliminal behavioral control, but when applied to the human collective, they become an anti-authoritative, anarchic force. It turns out, perhaps not surprisingly, that "algo" traders on the stock markets often deploy swarm system attack strategies to defeat rivals, initially in private "dark pools" trading but increasingly in all the markets open to them. Drawing on these examples, my paper will attempt to define swarm systems as a highly adaptable form of agency.

Mechanomorphosis – Realistic Animals in Virtual Worlds
Hobin, Nicholas (University of Waterloo; nicholas.hobin@gmail.com)

Is it possible, in a video game, to represent animals authentically? That is, can they be represented as living, conscious beings, rather than mere extensions and possessions of humanity? This question is complicated by the anthropocentricity of video games: virtual animals with which a player can interact are designed to benefit the player, whether as a tool, a resource, or an opponent. Even when aiming to simulate animals realistically, the processes of the game compel the player to consider the animal in terms of its triggers, behaviors, and rewards. Up close, every virtual animal is exposed as a deterministic machine. Some games,

however, take an alternate approach: they distance the animal by removing the players from the animal's time frame. In video games like Shelter 2 and Tokyo Jungle, to continue the game after a certain amount of time, the player's animal avatar must reproduce or raise its young to adulthood; one of these offspring becomes the player's new avatar as the game continues. This transformation encourages the player to recognize life not as a collection of independent instances of being, but as a continuous state of uninterrupted becoming. It emphasizes renewal and flow as necessary ways to understand processes, identities, and creatures. My research explores how the constant recreation of the player character in these games creates a continuity of being which allows the player to consider the life of the animal, not as a single timeless instance, but as an endless transformation of bodies embedded in time.

6H "Petro:Oceans" *MU229 Santa Cruz* Chairs: Jaimey Hamilton Faris and Melody Jue

What surfaces when we study the ur-liquids of oil and water as media, and as indexes, of our petrocapital lifestyle? Some of the most persuasive and consistent measurements of the Capitalocene/Anthropocene epoch have been calibrated in terms of these liquids: depleting oil tables, amounts of carbon sediment in precipitation, rising sea levels, melting ice bergs, increasing ocean acidity, square mileage of oil spills, plastic garbage gyres, and more. The production of these graphs of changing oil and water literally "charts" our sense of the present moment. Yet, the simplicity of pairing petro:ocean opens to other complexities of measuring, monitoring, and representing larger ecological systems through data visualizations, artistic media, and narrative. This panel organizes a discussion around how we imagine oil, oceans, or both together, as "media" through which to poetically gauge and engage our capacity to periodize the contemporary moment.

In Suspense: Tales of Oil Plumes, Stranded Containers, Derelict Fishing Gear, and Mermaids' Tears
Hamilton Faris, Jaimey (University of Hawaii; jhamiltonfaris@gmail.com)

In this paper, I will explore the importance of recognizing the ocean as a liquid archive of our petrochemical lifestyle. With the help of key eco-media philosophers and artists (John Durham Peter, Ursula Biemann, Emily Scott and more), we are beginning to understand our environmental elements as communicative and recording media. Based on this premise, I will think through the possibilities of the ocean as a "suspending" medium: a dense and salty molecular structure in which anthropogenic activities (among others) are held as records. I will look specifically at the strange array of petro substances that end up floating in the ocean, often far from the shore, turned under by the fierce currents, but often too light to sink all the way down to the bottom. These records are at once insoluble and almost invisible. There are millions of gallons of deep-water oil plumes lingering under surface slicks. Tons of old nylon fishing nets cut loose by commercial vessels drag across coral reefs for hundreds of miles. Plastic products float away from our shores and escape from stranded containers to gravitate toward the center of our ocean gyres. Some of this plastic breaks down into tiny beads of micro-plastic, known as mermaids' tears (these are vehicles for toxins like DDT, BPA, and PCB that, once ingested, poison the entire food chain). I will tell the tales of these insoluble substances, with an understanding that they ultimately speak about the time of human experimentation relative to the slow absorptive capacity of the ocean.

Between Salvage and Extraction: The Production of the Seafloor as a Resource Frontier
Han, Lisa (University of California, Santa Barbara; lisahan@umail.ucsb.edu)

Popular fantasies about the seafloor have often oscillated between the following two intertwined ideas: On one hand, it is envisioned as a precious archive or prelapsarian space that should be conserved and shielded from human contamination, and on the other, as a boundless treasure trove with the potential to fuel civilizations to come. Mineral and biological deposits seem to embalm time by maintaining a biological and geological record of Earthly matter. But when imagined as a wellspring of mineable resources, this deep sea archive becomes a standing reserve for human activity, what Martin Heidegger has termed a Gestell technology. Yet, given the ocean's material realities, the seafloor often evades classification as either pristine or fecund space. Perturbations like trawling, imaging, and sunken wreckage have transformed benthic ecosystems, turning solid earth into shifting mud and adding new layers of sediment to underwater landscapes. In this paper, I explore some of the ways in which the physical reshaping of seabed space is preconditioned by an imaginative reshaping of the seabed as a frontier, building upon work in ecomaterialism, media archaeology, and cultural geography. I argue that in existing views of the seafloor, futurity is made possible by the dual logic of salvage—the amassing of historical relics through preservation—and of extraction—wherein certain forms of landscape remaking are constituted as an active pursuit of progress. This salvage-extraction dynamic excludes decay, collateral damage, and outgrowths which exceed its temporal imaginaries.

Residual: Documenting Santa Barbara's Oil Rig Ecologies
Jue, Melody (University of California, Santa Barbara; melody.jue@gmail.com)

In this talk, I work through a concept of the "residual" as it emerges in my underwater photo documentation of Santa Barbara's offshore oil rigs. I consider how the residual ties together both oil and ocean, Marxist critiques of Capitalism (which must always produce surplus, or residual, value) and ecological critiques of petroculture (what kinds of waste does Capitalism leave?). In the specific ecologies of the offshore oil rig, the residual describes specific kinds of materiality found in the ecologies of life growing on oil rig structures underwater, such as empty mussel shells, algae, slime, and other remains of life. I bring my photo documentation in conversation with Imre Szeman's work on petrocultures and Charles Ackland's recent publication Residual Media (2015) to think about not only discarded media technologies, but (future) discarded infrastructures and the debates around what to do with oil rigs after they are decommissioned. The residues of Capitalism, then, have everything to do with assessing and planning the lifespan of infrastuctures and the forms of life that may assemble in their wake. Finally, I explore how the residual manifests through the medium-specific practice of underwater photography and the indexical traces of light registered on my camera's SD card, itself a product of petroculture.

6I "*Rendering Life Molecular* by Natasha Myers, a Configurations Book Panel"
        MU227 Pinal   **Chair: Susan Squier**

Nocek, Adam (Arizona State University; Adam.Nocek@asu.edu)
Aristarkhova, Irina (University of Michigan; airina@umich.edu)
Myers, Natasha (York Universtiy; nmyers@yorku.ca)
Squier, Susan (Penn State University; sxs62@psu.edu)

6J "Roundtable: Orphan Black and Biotech 2.0" *MU226 Graham*
       Moderator: Everett Hamner

"Orphan Black and Biotech" was a 2016 SLSA roundtable about the BBC America show, a uniquely informed television treatment of human cloning and other biotechnologies. Following a brief overview, each speaker used a 2-3-minute video clip (often suturing multiple scenes) to launch a 7-10-minute discussion. With encouragement from last year's organizers, I have gathered contributors for a sequel roundtable that will use the same format and pay special attention to the show's fifth and final season (premiering June 10, 2017). In addition to assessing this season's treatment of possibilities for radical life extension, we will consider the show's broader significance for public understanding of epigenetics, assumptions about gender and sexuality, the history of eugenics, tensions between urban/rural/suburban lifestyles, and religion-science debates (among other topics). This year's panelists again represent a wide variety of career stages and primary interests and will aim to spark an even broader conversation among panel attendees.

Contributors:
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6K "Deleuze Meets Serres, Fractures in Time" *MU224 Gila*   **Chair: Casey Ford**

The Future is a Fracture of the Present: Deleuze, Marx, and Time as Crisis Already
Ford, Casey (University of Guelph; fordc@uoguelph.ca)

The future is neither a reserve of time to come nor an ideal world promised by the forward movement of history. This conception of the future is the product of a theory of time that both compartmentalizes the temporal dimensions while also conferring on them a necessary and linear movement from the past, through the present, to the future. On this model, the present alone has full reality, and the future is either indeterminate or a utopian form to be realized or perpetually deferred. This paper presents Gilles Deleuze's synthetic and differential theory of time to emphasize his largely undeveloped claim that the future is not a volume of time outside the present, but rather the movement that fractures the present and causes time to outstrip the present. The future is the present, as a synthesis of the past, going outside itself into excessive, indeterminate time. We then connect this Deleuzian insight with a largely overlooked claim by Karl Marx in The German Ideology that the reality of "communism" is not a utopian society already determined in its structures, but rather any movement by which the present of capitalist production is disrupted and fractured by labor. Contrary to the claim by Karl Schmitt that the "state of exception," or the suspension of the present judicial order, belongs to the state, we affirm this crisis of the present as a revolutionary potential intrinsic to time itself.

After Actualization: on Deleuze's Temporal Critique of Jamesian Radical Empiricism
Yang, Dong (University of Georgia; ydphilosophy@hotmail.com)

Gilles Deleuze focuses his early philosophical inquiries on the British empiricist David Hume and regards the central theme of empiricism as the theory of external relation, which posits a clear separation between relation and the items associated. As important as Hume is for Deleuze's conception of relation, however, there is another empiricist philosopher who plays an equally important role on this theoretical question: William James. Deleuze's basic understanding of empiricism comes from his teacher Jean Wahl, who emphasized the exteriority of relations in his writings on empiricism and held up James's "radical empiricism" as an exemplary development of this line of thought. In the first section, I will examine James's radical empiricism and show how James moves beyond Hume. However, Deleuze does not completely adopt James's version of radical empiricism, but formulates a critique on the limit of temporality in his later collaborations with Félix Guattari. The second part of my paper will thus examine the differentiation of the thought of Deleuze and James. James's approach to the temporality of the individuation of particular entities sets him apart from Deleuze and Guattari: whereas James presupposes a temporality in which an originary "pure stuff" is succeeded by a world of discrete subjects and objects, Deleuze and Guattari dispense with any sense of beginning or ending in their conception of heterogeneity, arguing that in flows and rhizomes everything is always "in the middle," and hence independent of the temporality James posits.

Parasitic Time
Byron, Thomas (Boston University; tbyron@bu.edu)

In his work Le parasite, Michel Serres offers a response to Mauss' Essai sur le don by reframing the latter's ubiquitous exchange economy in terms of a different ubiquitous relationship – that of parasite and host. In reliance on examples ranging from the microbe to the human, but focusing especially on the French canon (Molière, Rousseau, La Fontaine), Serres teases out a structure of the parasitic relationship built on a chiasmatic exchange between the host who brings bodily substance only to receive the parasite's noisy message while the parasite brings only a noisy message to feast at expense of the host's substance. What Serres' text does not discuss, however, is the temporality of the parasitic relationship. In the very authors that Serres studies – both in Le parasite and elsewhere in his work, parasitism implies a suspended, différant temporality re-orienting a linear, measured notion of time. The parasite is ever pushing back the coming due of a debt or the moment of action – be it La Fontaine's grasshopper unprepared for the fall or Molière's Tartuffe temporizing through prayer. Through a few examples like these taken from the French canon, this talk will attempt to propose a means of addressing the concept of parasitic time left undiscussed in Serres' text.

6L "Narratives and Their Utility" *MU225 Yuma*   **Chair: Elizabeth Donaldson**

Fredric Wertham and the Psychiatric Utility of Literature
Donaldson, Elizabeth (New York Institute of Technology; edonalds@nyit.edu)

In 1954 psychiatrist Fredric Wertham published his infamous *Seduction of the Innocent*, in which he argued that comic books caused pernicious effects in the minds of the children who read

them. It would be an understatement to say that for historians and fans of comics, Wertham is not at all appreciated for his efforts to protect the minds of children from violence. His legacy is that of a real-life villain--the McCarthy of comics—whose work led to a destructive censorship of the comics industry. Yet as recent scholarship has demonstrated, Wertham's thinking about mass media is much more complex and socially progressive than previously imagined. Using Wertham's *The World Within: Fiction Illuminating Neuroses of Our Time* (1947), I argue that in his writing for the general public, in his public testimony in criminal and civil court cases, and in his practice as a psychiatrist, Wertham worked against a tendency in psychotherapy to privatize suffering. Wertham pointed always toward the larger institutional structures that shaped an individual's experiences. His use of literature—whether explaining the malignancy of violence perpetuated by crime comics in the minds of young readers or explaining the hidden neuroses of the culture in creative fiction—became a tool in a sociopolitical struggle against oppression.

The time of the living – on the poetics of recognition
Faria, Marcella (Dactyl Foundation, NYC; almeidapradomarcella@gmail.com)

Living systems – either real or fictional – display a precise sense of time. In processes as diverse as, the evolution of species; the development of embryos; the growth of cells; and the journey of literary heroes, time acts as a differentiation agent. It generates specifity, discriminatory competencies, patterns. At the same time, living things, as historic and determined as they are, will always be immersed in a mutable landscape. Boundary conditions, i.e. the constrains imposed to a system on its edges, are always changing. Living beings must continuously adapt to contingent resources inside their history. In our view, the ability to build narratives, as a distinctive feature reuniting biology and literature, emerges by a poetic use of material resources. This point will be illustrated by a brief discussion of two theoretical frameworks: 1) The Sciences of Recognition, as postulated by the neuroscientist Gerald Edelman in 2004; 2) The Theory of Poetic Action, as proposed by Paul Valéry in the late 1930s' Edelman claims that in evolution, embryology, immunology and neurobiology, a precise setting of biological rules emerges by selection acting over time on variable populations of molecules, cells, and organisms. These two notions, i.e. variation and selection, are at work at each hierarchical level of interaction between agents, in all four scenarios of Recognition Sciences. In the present work, we will translate Edelman's principles of recognition in terms of Valéry's theory of poetic action.

Reflecting on Nature's Destructive Power, through Giacomo Leopardi's *Broom*, or *Flower of the Wilderness*
Gibson, Alice (Kingston University; al1ceg1bs0n@hotmail.co.uk)

In his last poem, Broom, Leopardi offers a grand statement on human fate, comparing mankind to the tenacious shrub that springs up in the wilderness of volcanic ash around Mt. Vesuvius. Leopardi portrays Nature as fierce and unmoved by the frailty of humankind: 'Nature has no more esteem/or care for the seed of man/than for the ant'. He rewrites in Vesuvian terms Lucretius's account of the eruption of Etna and conveys the spectacle of Nature's cruelty, depicting a force that can partly destroy with the slightest whim, and can with movements not much greater, totally annihilate.

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

Following an elucidation of Vesuvius's destruction of Pompeii in AD 79 and the probable repetition of eruption in the future, Broom closes with a meditation on the humble presence of the transient plant, who will succumb to the cruel power of subterranean fire – a stark warning to humankind, who despite being fragile, continues to presume immortality.

The 'awe and admiration' in the closing pages of Kant's CPR evoked by the 'starry heavens above me and the moral law within me' are dwelled on in Leopardi's work. As in Kant's reflections, Leopardi creates a sense of the annihilation of one's importance as an animal creature, which must give back to the planet (itself a mere speck in the universe) the matter from which it came. I examine Leopardi as a geological thinker of mass extinction and unearth the resources he offers to attempt to rethink our place in the world, particularly in relation to finitude.

Workshop Session 6: "Digital Abstinence" *Digital Arts Ranch, DAR*

Critical Media Lab (CML) will offer a semi-nomadic workshop at SLSA 2017 on the topic of Digital Abstinence. CML researchers will engage in site-specific digital abstinence interventions, the results of which will be explored in a 90 minute workshop that will touch on such topics as digital sin, e-paranoia, attention deficit, and technological determinism. During the workshop, CML researchers will share results from their recent experiments in digital abstinence conducted with the Attention Lab, a cognitive psychology unit also at the University of Waterloo. Workshop attendees will also make their own digital abstinence "device" as a takeaway.

Keynote "Vaster Than Empires and More Slow: Vegetal Rhythm and Poiesis in Topological Matter" Sha Xin Wei
MU221 Arizona
5:45 PM – 7:15 PM

Maybe our temporality -- our lived experience of duration, change, rhythm -- is as anthropomorphic as narrative and music, but can we think temporality non-anthropocentrically, letting go of the conceit that we are the most **important beings in the world?**

How can we imagine textural media shaping not by pre-given forms of literature, architecture, computer science, data science, or molecular biology, but by a ceaseless, boundless play of forces, tensions, fields, and processes? And how can we pursue this as an empirical, experiential practice that is not only speculative but enactive? This opens the door for alchemical experiments, by which we mean ethico-aesthetic conditionings of experience that transmute the very materials and methods employed. We'll explore these questions drawing from alchemical experiments with timebased media and vegetal life.

Reception, *MU241AB Ventana AB*, 7:15 PM – 8:15 PM

Saturday, November 11, 2017, 9:00 AM – 5:00 PM

Synthesis Responsive Environments / Time Out *Matthews Center 2nd Floor iStage, MC222*

We invite you to come to iStage atelier to immerse yourself in a rich media environment, talk with Synthesis' researchers and artists, or just relax in our playful, poetic atmospheres. (Synthesis: synthesiscenter.net, Serra Montreal: vimeo.com/synthesiscenter/serra, Experiential Atmospheres: vimeo.com/synthesiscenter/clouds)

Workshop Session 7: "Slow Tuning 2," 6:40 AM *Turrell Skyspace ASU*

SLOW TUNING is a triptych of encounters curated by the Netherlands-based Slow Research Lab that offers SLSA conference-goers opportunities for experiencing attunement—an active bringing into harmony or feeling of being 'at-one-with.' Participants are invited to fine-tune their awareness as they Slow-tune their personal rhythms, seeking deeper resonance within themselves, with the local landscape, and with one another. For this final part of the triptych, participants should arrive no later than 6:40AM to take their place within the structure. As the early light of day enters through the opening in the roof, human perception is Slow-ly realigned with the rhythm of the natural world.

Saturday, November 11, 2017, Session 7: 9:00 AM – 10:30 AM

7A "Food Futures and Playful Ecologies" *MU236 Mohave*   **Chair: Kirsten Dillender**

Rice and Potatoes: Biotechnology and Impacts on Non-Western and Western Cultural Health in *The Windup Girl* **and** *All Over Creation*
Dillender, Kirsten (Western Illinois University; kn-dillender@wiu.edu)

Food safety and service And Potacurity is a global issue, but while biotechnology may offer solutions for feeding the world, it may also have impacts on the cultural health of those consuming altered crops. This project seeks to not only explore the repercussions biotechnology has on cultural health, but to consider how it differently affects cultures based on their western or non-western affiliation. To explore this idea, I examine how the narratives of both Paolo Bacigalupi's *The Windup Girl* and Ruth Ozeki's *All Over Creation* hinge on the discovery of a secret or forgotten seedbank and suggest that the authors' treatments of these seedbanks reflect the complicated relationship between cultural health and biotechnology in agribusiness. Combined with an analysis of culturally significant staple crops in the novels—rice for Bacigalupi's futuristic Thai Kingdom and potatoes for Ozeki's present day Idaho—this serves to position the more easily identifiable, domestic threat that Ozeki's characters face in challenging U.S. agribusiness as key for better defending cultural health. On the other hand, Bacigalupi's Thai citizens must fight the shadowy enemy of global capital, which is much more difficult for the characters to define and locate. This project thereby proposes that a one-size-fits-all approach to biotechnology may be inappropriate and detrimental to cultural health on not only a global scale, but particularly within the non-western sphere.

Futures at Risk: Seed Saving, Archiving, and the Politics of Cross-Temporal Collecting
Stuchel, Dani (University of Arizona; danis@email.arizona.edu)

Why do we archive? In this paper, I forward the premise that archiving is a cross-temporal practice which aims to mitigate future loss by creating a sense that records of the past are at risk in the present. We archive so that we might be historically understood in the future. Inspired by the framework of compost politics (Abrahamsson & Bertoni, 2014), I propose tracing the lineage of a materially and intellectually different collecting practice - seed saving - as a means of understanding the ideologies which uphold contemporary archival science. Inflecting this inquiry through an indigenous studies lens, I ask how seed saving positions indigenous people as repositories of past knowledge which can be extracted, stored, organized, and recalled - all while refusing to imagine a future populated by indigenous people. These cross-temporal practices result in survival of some through the genocidal extinction of others. Then, I consider sampling as a dominant method of seed saving, and one which inherently accepts loss of ecological "records" and a future shaped by collecting. Finally, I return to archival practice, explore how the methodologies and ideologies found in seed saving also emerge in archival science, and I propose ways these insights can reinvigorate stagnant conversations around archival collecting, appraisal, and deaccessioning.

Reinterpreting 3D Food Printing as Neo-Print Capitalism : Fabrication, Food, and Futures
Ngamarunchot, Bank (KMUTT; bankngam2@gmail.com)
Pataranutaporn, Pat (Arizona State University; ppataran@asu.edu)

Benedict Anderson argues in 1983 the idea of a nation, as a social construction that form by the shared imaginations among group of peoples. This imagined community emerges with a common discourse, culture, and language that are fabricated by the use of the printing press sponsored by capitalists. The print capitalism connects and allows readers speaking distinguished local dialects to be able to understand each other. Thus, allow for the common discourses to emerge. This paper applies the idea of Anderson's imagined community to reinterpret 3D food printer, a kind of 3D printer that can can fabricate three dimensional structures with edible materials, as a political object. We argue that the 3D food printer has the same political function as a printing press, which is to blend the cultural differences. The exchanges of food cultures, practices, and imaginations via a digital fabrication tool such as 3D food printer will continue the globalization movement, which according to Anderson creates "homogenous empty time". However, the political reinterpretation of the emerging technology as this paper has demonstrated sheds light to new undermined area of design politics within the field of human-computer interaction.

7B "Forms of 'Life,' Norms of 'Life,' I: Articulations" Papers from the Society for the Study of Biopolitical Futures *MU228 Cochise*   **Chair: Jeffrey Nealon**

Precariousness: On the Uses and Abuses of Credit and Debit for Life
Jaffe, Aaron (Florida State University; ajaffe@fus.edu)

Oddly, Judith Butler's *Precarious Life: The Powers of Mourning and Violence*, her post-9/11 mediations on terrorized life, does not mention the terrorizing character of escalating debt. Existential hazards constitutive of identity formation are credited to invisible forces of political control over subjects rather than debited to damaged objective relations between their modes and means of existence. Against the primacy of intersubjective politics as elaborated in the affective turn, my talk proposes to explore hidden relations between the inhuman mechanisms of debt and

the hidden epistemological yields that surplus alienation develops in strains of media theory. These are articulated in Sigfried Giedion's *Mechanization Takes Command*, Boris Groys's *Under Suspicion: A Phenomenology of the Media*, and elsewhere. I'll give particular attention to the example of *The Age of Earthquakes: A Guide to the Extreme Present* "curated by" Shumon Basa, Douglas Coupland, Hans Ulrich Obrist. Here, the criticality ascribed to forms of ontological suspicion gets mediated by and mutated by endless biopolitical emergencies and disruptive kinds of technicity and relentless existence-as-obsolescence associated with them. Homo precarious, in other words, the media worker-curator, marks a certain reorientation (re-sequencing) of the avant-garde and the vanguard, simultansously/reflexively reorienting pasts, presents and futures. For homo precarious, the development of time not space is uneven pars pro toto. As Bifo has recently noted, "the condition of the artist is the most extreme manifestation of the precarious worker, and its competiveness, but it's also freedom from slavery, from salaried work." In effect, I'm interested in the repressive desublimation in play in life on-line, oriented in and through the workings of biopolitical administration.

Songs in the Key of Life: Biopower and Popular Music
Nealon, Jeffrey T. (Penn State; jxn8@psu.edu)
"Music is prophetic. Social organization echoes it." --Jacques Attali, *Noise: The Political Economy of Music*

This paper argues that popular music has a linchpin place in tracking the shifts from a society of rigid disciplinary training to a biopolitical society of individual lifestyle goals and desires over the past half-century. In 1976, Vaclav Havel sums up the global distinctions between a dominant discipline and an emergent biopower in terms of Western rock music, or more precisely in terms of the communist regime's attempts to ban rock music in Eastern Europe. What you see in that drama of the repressive state versus popular music, as Havel writes, is not "two differing political forces or conceptions, but two differing conceptions of life. On the one hand, there was the sterile Puritanism of the post-totalitarian establishment; and, on the other hand, unknown young people who wanted no more than to be able to live within the truth, to play the music they enjoyed, to sing songs that were relevant to their lives, and to live freely in dignity and partnership." Here, Havel lays out concisely the biopolitical importance of popular music within a disciplinary framework: the musical stake here is not merely entertainment. Rather, listening to popular music goes all the way into the tall grass surrounding differing conceptions of "life" itself: whether life is all about doing your disciplinary part for the greater good of the state and the authorities (society understood as an assembly line, each with his or her own job in the factory that is the nation); or whether your individual rights to happiness and freedom trump everything else – a biopolitical world where everyone would be allowed and even encouraged to "sing the songs that were relevant to their lives." In short, this paper argues that the biopolitical, neoliberal consumption logic of the 21st century finds its roots oddly in the counter-cultural popular musics of the late 20th century, and pop music fans' almost slavish dedication to the authenticity of their music, whatever genre or style it may be (new country has hard-core fans, just as conscious rap does). Producing and maintaining this wonderfully oxymoronic mass-produced authentic individualism has been the primary cultural work of popular music over the past half-century. In short, I argue that biopower's individual "authenticity" discourse has migrated from its home turf of popular music discourse and practice, to become something like the logic of the whole in the American present.

The Political Novel after Discipline
Beckman, Frida (University of Stockholm, Sweden; frida.beckman@english.su.se)

The birth of the novel, as new historicists tend to point out, is intimately connected with the emergence of disciplinary society in the late 18th and early 19th century. Indeed, some even argue that the novel itself constitutes one of the institutions of discipline as it provides not just its characters but also its readers with "correct training" in the Foucauldian sense. As contemporary literature responds to the increasingly fluid control mechanisms that, as Deleuze has shown, begin to evolve beyond strictly disciplinary structures with some force after the Second World War, we can see how it struggles to accommodate for such changes. Even as they are thematically concerned with contemporary control mechanisms, such novels, as I will show, formally tend to fall back on disciplinary structures. And indeed, what would a novel that really reflects the "self-deforming cast" of control society look like? In this paper, I will explore the challenges to the novel form that come with control but also discuss how the formal properties of the novel may delimit its possibilities of responding to contemporary forms of political power.

Control/Shift: Thinking Young People and the Digital
Third, Amanda (Western Sydney University; a.third@westernsydney.edu.au)

Theorizing the digital as a key feature of the contemporary everyday, this paper analyses how dominant policy, practice and popular discourses in the English-speaking world have overwhelmingly constructed young people's digital engagements in relation to a logic of control. I argue that young people's digital practices are constituted through a series of double movements that oscillate between the dystopian and the utopian, between risk and opportunity, and between control and liberation. These double movements are the 'binary code' through which young people's digital practices are discursively produced as the objects of forms of control. Further, the impulse to control is exacerbated by the imagining of young people as inhabiting a crucial position at the nexus between past and future. This paper calls for 'Shift/Control'; a shift away from the domination of the control paradigm, not to "liberate" young people or the digital but to channel competing investments into the reimagination of our relationship to the digital.

7C "The Time of Gregory Bateson: Metapatterns and Beyond" *MU240 Navajo*
        Chair: Bruce Clarke

The work of Gregory Bateson spanned five decades between the 1930s and 1970s. It also spanned the transition from the first cybernetics—which explored control systems through information theory and digital computation—to second-order cybernetics, with its turn toward the autopoiesis of natural systems. In *Mind and Nature* (1979), Bateson stated: "*The pattern which connects is a metapattern*. It is a pattern of patterns." Taking Bateson's recursive cue, we can scale the analysis of metapatterns from relations among the elements of systems to the operations of systems as patterns in time. The speakers on this panel will consider the later work of Bateson in relation to a metapattern ("Star cybernetics") in the early work of Francisco Varela (Clarke), and then, in relation to three major temporal metapatterns—*arrows* (patterns of continuity, or gradient-like change), *breaks* (relatively sudden changes in system behaviors), and

cycles (patterns of systemic recursion), first, in learning, as this proceeds from individual to social to ecological systems (Bloom); and next, in the patterning of elements and relations that informs the unfolding of cosmic development (Volk).

Complex Learning and Teaching across Cycles, Arrows, and Breaks in Time
Bloom, Jeff (Northern Arizona University; jeff@jeffbloom.net)

Meaningful learning is a complex, nonlinear system within larger organismic systems of living things. Learning occurs over varying durations across individuals and contexts. However, we school young persons in institutions that treat learning as a linear system with tightly regulated timelines. The temporal assumptions embedded in our mainstream institutions of schooling include (a) learning can happen in specific, delimited arrow of time, rather than through recursive cycles of uncertain time, and (b) learning occurs along a linear trajectory, rather than with breaks and branchings that deepen relational learning. In contrast, Bateson's approaches to human learning (symmathesy or mutual contextual learning, deutero-learning or learning to learn, and learning as personal epistemological development) promote learning systems that conform their "ecology of mind" and corresponding patterns to ways of learning observable in nonhuman systems--ecosystems and patterns of evolutionary change.

From Bateson to Varela: The Intellectual Ecology of Star Cybernetics
Clarke, Bruce (Texas Tech University; brunoclarke@gmail.com)

With the 1972 publication of Steps to an Ecology of Mind, Gregory Bateson occupied a unique position at the bifurcation between mainstream and countercultural—or first- and second-order—cybernetics. In this period he gained two influential pupils: Stewart Brand, the editor of the *Whole Earth Catalog*, and William Irwin Thompson, the founder of the Lindisfarne Association. Heavily publicized in the vibrant numbers of Brand's 1974 start-up, *CoEvolution Quarterly* (*CQ*), and present at the periodic intellectual salons of Thompson's Lindisfarne conferences of that decade, Bateson's cybernetic ecologies informed a larger systems counterculture that also included Heinz von Foerster, John Lilly, George Spencer-Brown, Humberto Maturana, and Francisco Varela. Brand and Bateson organized, and Varela attended, a "Mind/Body Dualism Conference" in the summer of 1976. That fall *CQ* published Varela's article "Not One, Not Two," which introduced "Star cybernetics." I will explore this seminal neocybernetic formulation of a post-dialectical logic that connects the emergence of self-reference across a range of discursive formations on the model of a Batesonian metapattern.

From Quarks to Culture
Volk, Tyler (New York University; tyler.volk@nyu.edu)

Atoms combine to form molecules, molecules combine to form single-celled organisms. When people come together, they build societies. Might there be general processes we can identify in the nestedness of things? Drawing from my new book, *Quarks to Culture: How We Came To Be*, I show how large-scale temporal patterns are linked to the sequential emergence of fundamental levels of types of things and relations. Key to my method of observation is a recursive application of *combogenesis*: the combination and integration of previously existing things and relations to generate new things and relations. Regarding metapatterns, it is useful to distinguish

arrows of change within levels from breaks that take one level to the next level. In the cosmic sequence of levels, the most radical transitions involved the events that moved the dynamical realm of physics and chemistry, first, into biological evolution, and next, into cultural evolution. These recurrent metapatterns of time are thus to be found repeatedly in the largest-scale sequences from quarks to culture.

7D "Creaturely Memory and the Time of Forgetting" *MU242A Lapaz West*
      Chair: Kari Weil

In his theological concept of the Kreatur, Walter Benjamin points toward something that is left out by those who 'make history' as 'agents and points obliquely to those non-human creatures to whom we might look for that forgotten history if, that is we know how to 'pick it up' from them. Thus, he says that for Kafka, "animals are "receptacles of the forgotten." This panel will ask a number of questions raised by Benjamin's writing and by issues of creaturely memory and the time of and for forgetting.   How might attending to non-human animals change or modify what we understand by history and historical time—whether personal or cultural? What kind of knowledge is stored in animals and why is it stored there? More importantly, how do we retrieve it? The last question brings us to the question of an animal's own memory. How does that memory reveal itself? What speaks in an animal and how can we learn to hear it? If animals can, indeed serve as "receptacles of the forgotten," is there a point at which they too may forget, or when it is too late to retrieve from them what they know?

Darwin's Thinking Animals: On Nonhuman Memory in the Nineteenth Century
Samyn, Jeanette (Rutgers University (post-doctoral fellow); jsamyn@wesleyan.edu)

As Lorraine Daston has noted, the idea of nonhuman consciousness was "almost universal" among nineteenth-century evolutionists. But which creatures counted as conscious, self-conscious, or memory-having was up for debate. In The Descent of Man, for instance, Charles Darwin considers dogs' "mental individuality" while taking their memory as a given. He asks: "can we feel sure that an old dog with an excellent memory and some power of imagination, as shewn by his dreams, never reflects on his past pleasures of the chase? And this would be a form of self-consciousness." For others, meanwhile, this question appears ridiculous: "no one supposes that one of the lower animals reflects whence he comes or whither he goes,--what is death, or what is life, and so forth." And yet if the allied faculties of memory and self-consciousness were largely the purview of mammals for many evolutionists, Darwin and his peers tended to treat "lower animals" as having what I call "biological intelligence," a term encompassing forms of consciousness closely tied to one's place in an environmental milieu. Like the other essays on this panel, then, this essay takes cues from Walter Benjamin's writing on the Kreatur to think through nonhuman memory and consciousness. Focusing on The Descent and The Origin of Species, it probes the limits of nonhuman memory and intelligence in evolutionary thought. And in so doing it begins to disentangle the relationship between memory and space in such work, exploring what it means for any creature—from "lowest" to "highest"— to be a repository of spatial memory.

Animal (Re)collection: Benjamin and Sebald
Lozinski-Veach, Natalie (Brown University; natalie_lozinski-veach@brown.edu)

If collections are galleries of the past, memories encapsulated in objects, their carefully curated contents do not only tell stories; they construct, and therefore also efface, histories. Such erasure becomes particularly palpable in the case of collections composed of animal bodies, in which previously living beings are inscribed with human histories. Yet what happens to our understanding of personal memory and cultural history when the threshold between collection and commemoration blurs as objects turn back into remains, silently insisting on their own, inaccessible iterations of the past? In this paper, I will consider the implications of non-anthropocentric semiotic agency for remembrance in Walter Benjamin and W. G. Sebald, both of whom contemplate the intersection of human and animal histories through images of Lepidoptera collections. Benjamin's thought image "Butterfly Hunt" and Sebald's prose-text Austerlitz uncover strange memories marked by forgetting in long-dead insect bodies. While Benjamin's meditation on a butterfly case from his childhood evokes a resurgence of memory not quite his own, Sebald's narrator encounters the traumata of European history in moths resting in makeshift coffins. Taken together, the two texts unsettle anthropocentric models of remembrance, memory, and history as they carve alternative channels of experience into the past.

Horses, Habits and the Time of Healing
Weil, Kari (Wesleyan University; kweil@wesleyan.edu)

"So time does indeed heal all. Presumably Lucy is healing too, or if not healing, then forgetting, growing scar tissue around the memory of the day, sheathing it, sealing it off." This quotation from J.M. Coetzee reappears in a volume entitled, "We are All Flesh" in which excerpts from his many works are combined with images of sculptures (or fragments thereof) by the Belgian artist Berlinde de Bruckeyre. The first image in the collection is, unsurprisingly, a close up from an installation called "The Wound," showing what appears to be a stitched and healing scar, here made of wax, wood and cloth. Curiously, the volume moves from this notion of human scarring, to images of the glossy, taxidermied coat of a horse, shot from angles that render their curled or folded positions all but illegible. What is the relation of this fur to the idea of scarring? Do horses not scar and heal in the same way, we might ask? Is this why they are "receptacles of the forgotten," as Walter Benjamin says, their wounds still open but hidden beneath their fur rather than stitched over by a healing and written history? These are some of the questions this paper will raise in moving between Coetzee, De Bruyckere's sculptures and 19th century writings about memory, habits and the training of horses.

7E "Technologies of Sonic Temporality" *MU242B Lapaz East*   **Chair: Mack Hagood**

Sound can be understood as an emergent temporal relationship between a vibrating object, a space, and a hearing subject. The number of waves per second determines pitch, while the temporality of reverb and echo sonically expresses the volume of space. Such sonic-temporal relationships, which scale from the rhythmic entrainment of brainwaves to the seasonal changes of soundscapes, have been the object of technological observation and manipulation throughout history. This panel examines 20th and 21st century technologies of sonic temporality and their cultural underpinnings. Working at the scale of cycles per second, Martin Scherzinger and Mack Hagood both investigate the phenomenon of acoustic entrainment, the tendency of human neural oscillations to synchronize their periodicity with rhythmic patterns of sound. Scherzinger focuses on the use of entrainment in Music Information Retrieval (MIR), which computationally extracts

and capitalizes on subjective human musical capacities. Hagood analyzes Balinese gamelan and YouTube "digital drugs" videos through which individuals fine-tune their own sonic-temporal capacities, using microrhythm as a technology of the self. Working at the scale of the WWI battlefield, Greg Siegel examines how "sound-ranging" techniques and technologies used the timing of distant artillery sounds to trace the enemy's cannon projectiles back to their source in a "positionally distributed landscape of political emergency and vibrational extremity." Dave Novak mines circuits of sound synthesis and circuits of music culture for new assemblages of neoliberal temporality in Indonesia. These papers show how technologies of sonic time articulate with the political, religious, aesthetic, and economic exigencies of their milieu.

Algorithmic Temporalities of the Neo-Colony: The Case of Musical Entrainment
Scherzinger, Martin (Associate Professor of Media, Culture, and Communication, New York University; mrs11@nyu.edu)

This paper investigates the modeling of the musical ear in our times. Pervasive digital networks of 21st century communicative media are issuing a mutation in affective temporality, thereby effectively producing new models for technical forms of life within it. Hitched to the development of various digitally efficient applications that operate within the networks, the science of Music Information Retrieval (MIR) is increasingly attuned to an economic demand for models for organizing and shaping musical time. Current research in this sector attempts to map human-computer interaction and interfaces in various ways. The central debate in MIR involves the degree to which the affective lives of human beings are inflected by cognitive, cultural, representational and social mediations, on the one hand, and/or grounded in a comparatively ancient, primitive neural base, on the other. For software engineers, the challenge involves the computational extraction of subjective human hearing capacities and entrainment patterns via signal processing techniques. A nonlinear auditory system confronts a binary code. This paper will reflect on the kinds of data inputs deployed by music software in current development, and their relation to thinking in time, considered on a global scale. Lines of code have been socially nurtured under quite specific conditions, often partly delinked from the scientific and academic protocols that guide them. Drawing on musical practices from Africa, India and other non-western loci as a central referent, the paper shows how new music software exteriorizes a euro-genetic industrial habitus, remodeling temporal life and leaving a material imprint on the body.

Balinese Beats and Digital Drugs: The Temporal Entrainment of Sonic Affectivity
Hagood, Mack (Miami University; mhagood@miamioh.edu)

This presentation is a comparative study of the Balinese metallophone orchestra known as the gamelan and the contemporary YouTube genre known as "digital drugs" or "binaural beats." Both technologies may be understood to use the psychoacoustic phenomenon called "beating" to rhythmically entrain neural oscillations that mediate the human mind, facilitating trance states in participants or users. However, through their associated participant structures and habituses of listening, these media respond to and produce very different experiences of self and sociality. Balinese gamelan trancers create a shared sonic space where they can lose their individual identities for the good of the group. YouTube users wear headphones to create a privatized sonic space of beating so that they can craft and perfect themselves as individuals. More broadly, the temporal entrainment of sonic affectivity enacts groupings of different scales: neurons, bodily

movements, and formations of bodies. Each vibro-affective practice affords different forms of freedom and constraint, connection and disconnection, through its particular mediation of layered systems--from the molecular and neurological up through the religious and political.

Hacking the Modularity: Synthesizing Neoliberal Temporalities in Indonesian Experimental Music Networks
Novak, Dave (Associate Professor of Music, University of California, Santa Barbara; dnovak@music.ucsb.edu)

This paper considers Indonesian experimental music networks — and particularly a recent local boom in circuit-bending and analog synthesis via the "Eurorack" modular system — as a focal point for the emergence of neoliberal subjects in the recent geopolitical "pivot to Asia." The emergence of local entrepreneurial "maker spaces" of "DIY" engineering run counter to mimetic versions of Asian popular culture (e.g. K-pop, J-pop, Bollywood); such networks "recenter" historical processes of globalization (Iwabuchi 2002) by generating new practices of creative work that repurpose electronic music technologies toward a new trans-Asian circuitry. At the same time, local assemblages of circuit-bending, hacking, and Noise electronics bump up against the atomized consumerism of "Eurorack" synthesizer formats, whose separately purchasable modules rely on highly rationalized models of individuated creativity and market exchange. Drawing on recent ethnographic fieldwork with circuit-benders and synth-builders in Bandung and Jogjakarta, I reveal this technocultural feedback as both an intervention into narrow Euro-American timescales of music-technological innovation, and a rationalized model of transnational reciprocity that highlights the global emergence of neoliberal creative praxis.

Of Mouths and Shells: Tone, Time, and Battlefield Attunement in World War One
Siegel, Greg (Associate Professor of Film and Media Studies, University of California, Santa B; gsiegel@filmandmedia.ucsb.edu)

Advances in artillery firepower played a major role in the transformation of the battlefield during the First World War. The problem of how the enemy's cannon projectiles could be traced to their point of origin—particularly under conditions of reduced visibility—urgently imposed itself. In response, military engineers developed an array of new "sound-ranging" techniques and technologies. That the sound of a cannon is not, in fact, single but double, not integrally homogenous but tonally—and temporally—heterogeneous, became a matter of cardinal importance. The dull report emitted at the instant of the cannon's discharge travels slowly and arrives to the ear second, a late, lumbering sonority on the edge of perceptibility. French engineer Ernest Esclangon dubbed this low-frequency air-pulse the onde de bouche: the muzzle-wave, the mouth-wave. The sound that travels fast and arrives first, on the other hand, is the loud, sharp crack of the shell in flight, the high-frequency burst propagated by the speeding projectile. Esclangon referred to this staccato blast as the onde de choc: the shockwave. As auditory phenomena, then, muzzle-waves and shockwaves were mutually "out of time." This paper analyzes how wartime sound-ranging apparatuses configured the coordinates and propelled the activities of battlefield bodies and technologies. I argue that such complex media assemblages organized and energized a hierarchically differentiated, positionally distributed landscape of political emergency and vibrational extremity—an articulated power-diagram of attunements and

exposures, speeds and thresholds, agents and vectors, timings and transmissions, sensory receptivities and existential precarities, mouths and shells.

7F "Measured Realities: Temporality, Ontology, and Chronology" *MU246 Coconino*
      Chair: Arkady Plotnitsky

"When time is broke and no proportion kept:" Temporality and Probability in Quantum Theory
Plotnitsky, Arkady (Purdue University; plotnits@purdue.edu)

According to Bohr: [T]he recourse to probability laws in quantum physics is essentially different from the familiar application of statistical considerations as practical means of accounting for the properties of mechanical systems of great structural complexity. In quantum physics we are presented not with intricacies of this kind, but with the inability of the classical frame of concepts [to access quantum reality]." In quantum physics, the recourse of probability arises because it is no longer possible to represent, especially causally, the nature of quantum reality. The juncture of reality, causality, and probability is a familiar feature of foundational discussions concerning quantum theory. The main contribution of this paper is to bring the question of time and temporality into this problematic. I will argue that temporality and the concept of time, more commonly addressed in the context of relativity, require a radical reconsideration in quantum theory. "Time," I shall argue, becomes "broke and no proportion kept," to cite Shakespeare's Richard II, a lesser known but subtler version of "Time is out of joint" in Hamlet. Remarkably, this type of concept defines Friedrich Hölderlin's understanding of time developed in his reading of the Greek tragedy, where probability plays a key role, as it does in Shakespeare's plays, the main modern source, along with Kant, of Hölderlin's understanding of time. As Aristotle said in Poetics, in tragedy "it is probable that improbable things happen," because, as Hölderlin would have argued, in the first place, time itself is broke, is out of joint.

Ontological Measures: What We Talk About When We Talk About Math
Reitz, Anthony (Penn State; ajr48@psu.edu)

Despite its prestigious position as the archetype of rigor, mathematics suffers and enjoys an ambiguity about its own ontological status. The cosmologist Max Tegmark claims that "the fundamental Legos out of which everything is made appear to be purely mathematical in nature, having no properties except mathematical properties." Here, the very being of the universe is mathematics. When we get to the quantum level, for example, matter no longer exists. At that level we have the fundamental state of the universe, and there Tegmark claims that the universe is mathematics and nothing more. Yet, in a recent interview, topologist Louis Kauffman stated that "There is no single object that we can say IS 'two'…that relational binding…was needed in order to support our seemingly concrete world of objects." For Kauffman, the world of mathematics is not found "out there," as it is for Tegmark. Instead, Kauffman offers a relational phenomenon that "exists" as an abstract realm which needs no support from the "concrete world of objects," echoing Brian Rotman's claim that "Signs…are not given as formal objects in some abstract already present space." Kauffman argues that mathematics does not have an existence "outside" itself, but instead composes a self-referential system without any preexisting reality. This talk will explore the rhetorical features of the language in which these claims are made as

well as the implications of the discussion between these perspectives. What are we talking about when we are talking about math?

7G "Game Studies 4: Gender and Queerness" *MU238 Apache*   **Chair: Edmond Chang**

This panel engages gender and queerness in games, play, and digital spaces.

Living at the Edge of the Galaxy: Queering Mass Effect with the Asari
Bird, Ashlee (UC Davis; ahbird@ucdavis.edu)

This paper will perform a queer of color reading of the asari, a non-gendered race of biotics around which the game world of Bioware's Mass Effect trilogy is centered. I will dissect how the world is created through in-game codices and the effects of this textual worldbuilding. Specifically, I ask how a player's choice to engage with or reject in-game text necessarily situates the player within the game world and informs a specific type of play. The textual elements of the game position the asari as a locus of exploration of the complexities of gender and sexuality within a diaspora. The Codex also describes their role as harbingers of interspecies reproduction in the face of genocide and a diasporic hub world. The paper focuses on the ways in which the Codex, along with the in game text, creates a world wherein players who choose to disregard the text are able to read the game and the asari as the next in a line of commodities produced for the consumption of a particular type of gamer-- that is, as "blue strippers" legible as part of the legacy of the spectacle of a sexualized female body to cishet male gamers, the target audience that their physical form is meant to implicate. Disregarding the text refuses to engage with the manner in which the asari queer the genders and sexual/reproductive acts of in-game characters, but also the players' own gamic actions. Ultimately, the mutability of the text elements of Mass Effect is the result of the ways in which players are conditioned to read games through their previous experiences of video game consumption, a fact which. Signals towards larger problems of representation in the video game industry and media studies as well.

Tricking Masculinity On Grindr
Lajoie, Jason (University of Waterloo; j2lajoie@uwaterloo.ca)

In this talk, I explore how gay men perform masculinity on Grindr. I view the platform as a ludic medium, as both site and stage for expression, to consider the cultural techniques and playstyles it affords. Contemporary studies of online sexual practice between men show a considerable range of behaviours, and suggest a growing flexibility and fluidity of identities. My research considers how aspects of gay masculinity and sexuality are negotiated and played by and among men through the discursive materials like text and photos they are enjoined to create and share by the Grindr platform.
        I further investigate the dynamics of identity performance and negotiation by focusing on the evolution of the now archaic slang term "trick". A loaded concept that once connoted a promiscuous lifestyle among male homosexuals, the term has shed its lexical token over the past few decades and permeated into a wider typology of meanings rooted in the performances and discourses of masculinity. I treat the "trick" within a broader continuum of play forms (those categorized by Caillois) to consider its constitutive function in the spectacle of masculinity. Though the term is unused today in modern gay culture, the "trick" concept is nonetheless played through the negotiation of gay semiotics in the pursuit of gratification. To trick these days is still

to play the game of performativity, the goal to successfully perform masculinity through the profile, a cultural performance that I will argue can serve both productive and potentially deviant functions.

Queergaming
Chang, Edmond Y. (Ohio University; edmondchang@gmail.com)

How might we think about ways to play games and make games that take advantage of the affordances of digital computers as well as the happy accidents, workarounds, and transformations that provide alternative practices, opportunities, and endgames? How might we think about what Alexander Galloway calls countergaming, which does not simply identify "alternate formal strategies" of gaming but actively employs and gleefully explores those strategies. By extension, how might we imagine queergaming, ways of playing against the grain, against normative design, and ways of designing gamic experiences that foreground not only alternative narrative opportunities but ludic ones as well. Queergaming embraces the possibilities of nonproductive play, the uncertainty of glitches and exploits, and the desire for queer worlds as opportunities for exploration, for different rules and goals, and even for the radical potential of failure. Looking at a range of games, from mainstream bestsellers to independent titles, this paper hopes to define the need for more than queer content or window dressing in games but for queer(er) design, practices, and play.

7H "Collective Manifestations: Thinking Futures beyond the Dark Mountain" *MU229*
Santa Cruz   Chair: Michael Uhall

Collective manifestation (manifestare: "to discover, disclose, or betray") serve as one possible description of the task of politics. Accordingly, this panel explores needful, provocative modes by which speculative figurations of our futures are manifested: How do futures get made, negated, and transmitted? Each panelist engages with the form of the manifesto. These engagements illustrate how manifestos both direct our attention toward some futural state and endeavor to make that state manifest within the confines of the present. Manifestos exist outside of time: one foot in the present, the other stepping into a future that should be arriving any moment. Brandon Jones discusses utopian speculations in the context of environmental literatures that refuse both apocalypticism and pastoralism. He suggests a tentative ecology intended to surpass eco-pessimism. Andrew Pilsch turns to contestations over the status of our planet and future as articulated by the accelerationists and by relatively apolitical nihilists. At stake for him is nothing less than the relationship between history and technics. Christine Skolnik considers the possibility that time itself becomes dislocated by the manifesto form. She draws upon Agamben and Derrida to inquire into how the Dark Mountain Project prefigures new myths for a damaged polity. Last, Michael Uhall argues that the category of the post-apocalyptic offers us distinctly political opportunities for theorizing the human in a mode of a radical decathexis. He navigates the wild "Time-War" writings of the CCRU and Paul Kingsnorth's apocalyptic fictions in order to salvage the political for our epoch of ecological crisis.

Declensionist nature narratives and their discontents: tentative ecology and weak utopianism
Jones, Brandon (University of Illinois at Urbana-Champaign; bdjones4@illinois.edu)

The Dark Mountain Project can be situated at the contemporary end of a long history of declensionist writing about environmental crisis and apocalypse. From Rachel Carson's *Silent Spring* to Bill McKibben's *The End of Nature*, this tradition's tales of a beautiful natural world that humans have caused to decline over time have provided some of the most reliable rhetorical templates for getting people to collectively care about and organize on behalf of the environment. Despite its reliability, however, this declensionist environmental imagination can become a self-fulfilling prophecy, encouraging nihilistic fatalism and quietism in the face of urgent circumstances we can do nothing about rather than inspiring the preventionist call to arms that is the presumed goal of its cautionary tales. In this paper, I consider what an environmental imagination might look like that goes neither backward to a pastoral utopia, nor forward to environmental collapse, and explore what the consequences of such an imaginary might entail for manifesting ecological collectives. For this task, I turn to environmental narratives in literary fiction that represent a combination of what I refer to as the politics of tentative ecology and the form of weak utopianism. Using Alice Walker's *The Temple of My Familiar* and Amitav Ghosh's *The Hungry Tide* as my case studies, I argue that such narratives stage provisional attempts at a better life whose success as alternatives to the human and nonhuman costs of extractive economies depends on whether characters and readers confirm or deny the ways of living they model.

Rocket into darkness: accelerationism, space, and the future of the future
Pilsch, Andrew (Texas A&M University; apilsch@tamu.edu)

This paper contributes to the tensions between accelerationism and nihilism in contemporary theories of the future. I juxtapose theories of hope (represented by Alex Williams and Nick Srnicek's "#ACCELERATE Manifesto") and doom (represented by Eugene Thacker) as key examples of these two positions. Specifically, I explore space travel as a recurring motif in both bodies of work. Williams and Srnicek's version of accelerationism, which could be summarized as "communism with rocket ships," connects the Marxist "way out is through" argument first identified by Benjamin Noys to contemporary science fiction tropes of space exploration, life extension, and mind expansion. In discussing this brand of accelerationism in conversation with Robert A. Heinlein, I show that Williams and Srnicek align with an older "rocket ship ideology" that saw space travel as atonement for Western humanism's colonialist sins. On the other hand, Thacker's brand of nihilism, informed by H. P. Lovecraft – who imagines Earth as an island from which humans should not stray – is deeply suspicious of space beyond its dark, foreboding emptiness. To exemplify this view, I read Sam Kriss's "Manifesto of the Committee to Abolish Outer Space" as a rebuttal to rocket ship ideology. Kriss figures space travel as an escape from our earthly responsibilities to deal with oppression. I conclude by juxtaposing Kriss's on rockets with Nick Land's optimistic take on accelerationist nihilism to ask if, in our contemporary moment, we must not only confront our muddied future but also our technological ideologies.

Post-apocalyptic forms of life: decathexis as futural projection
Uhall, Michael (University of Illinois at Urbana-Champaign; uhall2@illinois.edu)

We misunderstand the post-apocalyptic when we confuse it with apocalypse, and we can see the truth of this simply by surveying the landscape of so-called "post-apocalyptic" media. In much of this media, there is an unrelenting focus on the circumstances of collapse, disaster, and emergency. But the post-apocalyptic, in fact, refers us to a time after the time of destruction. For us, especially – the precarious subjects of an ongoing ecological crisis – the post-apocalyptic functions as a necessary mode of speculative futural projection. It poses questions that we desperately need to ask collectively, such as: Where are we going? Who are we becoming? What will we take with us, and what will we leave behind? Accordingly, I argue that the register of the post-apocalyptic performs a distinctly political function that demands decathexis – that is to say, some degree of affective and libidinal disinvestment in our collective and individual modes of existence in the present. We are subjects of multiple regimes – of ecological crisis, neoliberalism, and political decay – but we are also subjects of the future. As such, we are subjects out of time, constantly departing, propelled forward like locusts before the flame. Engaging with a range of textual resources – principally, the wild writings of the CCRU (1997-2003) and Paul Kingsnorth's novels, as well as his work on the Dark Mountain Project – I explore how our distinctly post-apocalyptic subjectivity takes shape in matter and media and how this enables us, in turn, to shape pathways of political action.

Writing hope and haunting
Skolnik, Christine Maria (DePaul University; cskolnik@depaul.edu)

"The messianic is not just one of two terms in this typological relation, it is the relation itself" (Agamben). Writing creates one spectral menace after another. Every premise is chained to a gang of prior claims, and every imperative summons infinite meanings. Are dreams of writing as presence shear interference patterns of memory and desire, or can we imagine a different "type" of relation? *Uncivilization: The Dark Mountain Manifesto* posits imaginary ends and phantom histories as it unearths the roots of social, economic, and ecological crises in myths of "progress… human centrality… and separation from 'nature'." As a story of stories it begs to be deconstructed, but then what? The story creatures have escaped their confines. The roots of "converging crises" are still abroad, become zombies we battle for the sake of future generations, trapped in dystopian anime. We confront the myth of our separation from culture beneath the myth of our "separation from nature," but cannot, then, comment from some rarified cultural atmosphere. Myths are cosmologies, worlds, ecosystems. We inhabit them, and they inhabit us. In *Giorgio Agamben: Beyond the Threshold of Deconstruction*, Kevin Attell contrasts Derrida's future-oriented, secular messianic time with Agamben's relational concept. This paper will read *uncivilization* within the context of Agamben's "uni-dual" structure, which dislocates time from both Christian and Hegelian "progress," and offers a "model for conceiving the present" – for a generation that no longer believes in stories.

7I "Roundtable: Emerging Approaches: Methodologies in Mathematics and the Humanities" *MU227 Pinal*   **Moderators: Valerie Allen and Travis Williams**

The last three decades have witnessed increasing engagement between the humanities (literature, philosophy, and history) and Mathematics Studies. Both fields of study have changed as a consequence. Mathematics Studies, conventionally dominated by Whiggish historiography and technical description, has in the light of the insights of textual studies and historicism been led to

reassess common assumptions about the referential power of its notation and the ontological status of its objects. The humanities in turn have been led to rethink their foundational practices (close reading, source criticism, the study of problems) in light of the impact of big data among other mathematical interventions in the field. These innovations are themselves now ripe for reassessment as literary historicism and the Digital Humanities are subject to new pressures. This roundtable will take up in debate the methodological directions in which Mathematics Studies seems to be headed, what the resultant challenges and opportunities might be, and what pedagogical impact these emergent and intersecting methodologies in both fields might have in education.

Contributors:
Williams, Travis (University of Rhode Island; tdwilliams@uri.edu)
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7J "**Pursuing the 'Vital Force' and Invisible Realities--from Psychical Research and Spirit Photography to Cubism"** *MU226 Graham* **Chair: Linda Dalrymple Henderson**

This is the first of two panels in a stream titled "In and Out of Time in Science, Occultism, Art, and Literature." The panel brings together an international group of scholars whose research focuses on psychical research and spirit photography as well as their ramifications for art.

From the Embodied Self to the Social Body: Exteriorization, Telepathy, and la Force Vitale in Belle Époque France
Brower, Brady (Weber State University; mbrower@weber.edu)

For much of the nineteenth century, French academic thought was dominated by the liberal ideal of subjectivity instituted in the 1840s by the philosopher Victor Cousin. This self or "moi" served as a means to integrate the diverse faculties of thought identified by phrenologists into an autonomous, free-standing, and self-authorizing unity. As a consequence of the orthodoxy that this conception achieved, any approach proposing that human society be taken seriously as an object of scientific study tended to remain academically marginalized. Only with the great upheaval of 1871 would an emerging generation of French scholars begin to look for methods of understanding those forces that constituted the social bond between individuals. In this effort, they encountered forceful resistance from a philosophical establishment that dismissed the objective reality of the social as "quasi-mystical nonsense." Seeking leverage against these objections, reformers engaged in daring interdisciplinary borrowings and extramural appropriations. With the discoveries of Hertz, Roentgen, and Becquerel, these appropriations tended to focus on the phenomena of electro-magnetism and on the invisible emanations of living matter. In this framework, society came to be conceived of not as an abstraction embodied in institutions and rules but as a network of physical and psychic connections linking isolated subjects in relations of influence and sympathy across both distance and time. My paper will address the research agenda surrounding three phenomena through which such connections were operative.

Capturing Ectoplasm: Dr. T. G. Hamilton's Contribution to the Psychic Sciences
Keshavjee, Serena (University of Winnipeg; s.keshavjee@uwinnipeg.ca)

Scientists began tracing and depicting the vital force or the "psychic force" by the mid-nineteenth century, launching seventy years of psychic study into ghostly manifestations. Scientific illustrations of the vital force were widely understood to represent the physical mechanism of materializations, captured instantly by automatic recording devices. This paper will examine how two famous scientific spiritualists, Arthur Conan Doyle and Dr. T. G. Hamilton used photographs and their expertise with new media to make a case for discarnate spirits. In 1924 Conan Doyle traveled across Canada and gave illustrated lectures to large audiences about spiritualism. One of his contacts was Hamilton, who by 1930 was on his own lecture circuit with lantern slides in England. These two trained medical doctors make for a good comparison. They both relied heavily on new technologies, electrical timing devices, and flash releases to stop time in an instant in order to capture ectoplasm, described as a living force and the proof for life after death.

Occultist Cubism: Mysticism, Spirit Photography, and Max Jacob's and Picasso's *Saint Matorel*
Brauer, Fae (University of East London and University of New South Wales; F.Brauer@uel.ac.uk)

While the correlation of Cubism's dissolution of matter and invisible realities with the new sciences of X-rays and radioactivity and new geometrical ideas of space is now well documented, its relationship to occultism, particularly to mysticism and spirit photography, remains relatively unexplored. Nevertheless both Picasso's and Braque's Cubism was aligned with the néo-mallarméan mysticism of *La Phalange* and referred to, in this Neo-Symbolist journal, as "l'Art négatif," "Le Mysticism Contemporain" and "une secte mystérieuse." Through Picasso's close relationships with Guillaume Apollinaire and Max Jacob, he was regularly exposed to *La Phalange*, *Les Marges*, *La Plume* and *La Vie mysterieuse* alongside the esoteric treatises of 'Papus' as well as psychic and spirit photography, including Baraduc's photographs of the "vital force" of the human soul and Albert de Rochas' photographs of the "exteriorisation of sensibility." Hence in 1910 when Daniel-Henry Kahnweiler commissioned Picasso to illustrate Jacob's mystery play trilogy, *Saint Matorel*, capturing the mystical experience of Jacob's visions of Jesus, Picasso's Cubistic etchings appear as celestial and mysterious as Jacob's main character's spiritual conversion. Seemingly pierced with rays of invisible energy, the materiality of Picasso's figures and objects appears to dissolve into bursts and flickers of light and darkness, akin to those in spirit photographs, and to emanate out of a Bergsonian time and space. By focusing on these themes. as illuminated by the relationship of Picasso's images to Jacob's prose poems in *Saint Matorel*, this paper will explore the fusion of occultism with Cubism.

7K "Science Fiction from Modernisms to Neoliberalism" *MU224 Gila*
        Chair: Melissa Littlefield

Atomic Bombs and Jellyfish: History, Affect, and Scale in *The Lathe of Heaven*
Kennedy, Robert (University of Utah; everblastingbobstopper@gmail.com)

In a brilliant passage in Ursela K. Le Guin's The Lathe of Heaven, Le Guin poses the question of how to live in a world out of all scale. In the novel, the future world falls apart ecologically and politically, held together by the power of the novel's protagonist, George Orr, whose dreams change the world and its history. Orr fears his power, protesting that despite the involuntary nature of his gift, he has no right to change the world. Le Guin juxtaposes the gaunt Orr with enormous events and objects – nuclear war, climate change – to create unease in the reader. I argue that the power of Le Guin's novel comes from a particular affect that I call scalar apprehension. Scalar apprehension, closely related to both Heideggerian anxiety and anxiety in the sense that Sianne Ngai uses the term, names an anxiety based on juxtaposition of the limited self against enormous objects. Le Guin exaggerates the Cold War fear of scales, of the personal idiosyncrasy escalating through opaque mechanisms of power to cause catastrophe. While some of the specific historical facts which inform the novel's various cataclysms no longer obtain, Le Guin's invocation of scale illustrates a pervasive fear in our time of climate change, that the individual is abject in the face of events too large to control. Le Guin's jellyfish, George Orr, exemplify and perform scalar apprehensiveness as the key constitutive attunement of life after World War II.

From Flash Gordon to Cerbro: Brain Wave Discourses in Mid-century American Popular Culture
Littlefield, Melissa (University of Illinois, Urbana-Champaign; mml@illinois.edu)

According to NeuroSky's website, their EEG wearable devices measure "Brain waves. Not thoughts." The designers are stressing the difference between capturing the brain's electrical signals—which they distinguish from "actual thoughts"—in order "to translate brain activity into action" (http://neurosky.com/biosensors/eeg-sensor/). The distinction ostensibly makes EEG wearables appear objective: data in, data out, with no messy translation from or to thought in between. However, there is a more complex story behind the brain wave discourses upon which these devices rely. In the science fiction of the twentieth-century, pre- and post-EEG references to brain waves differ largely in terms of instrumentation. With few exceptions, pre-EEG references tended to be somewhat vague, to refer to an inspiration, the spark of an idea, or the potential for thought transference between people. By the 1930s, as news of Hans Berger's work spread in the popular and scientific media, fictional references to brain waves—including their existence as real phenomena—begin to morph and change. Berger may have demonstrated that the brain produces electricity, but many authors, artists, theorists, and scientists have taken these "signals" and translated them into symbols for creation and control. In this presentation, I analyze imagined representations of brain waves from mid-century popular culture that rely on instruments for the amplification of thought. These narratives represent the immediate post-EEG era as one dominated by discourses of brain waves *as* thought and provide some of the first evidence for instrumental brain wave discourses.

The Shared Utopia of Kazuo Ishiguro's Never Let Me Go and Bong Joon-ho's Snowpiercer
Murphy, Robinson (University of Notre Dame; rmurph12@nd.edu)

In Never Let Me Go—Japanese-British Kazuo Ishiguro's speculative novel about human clones and their unwitting to organ harvesting for the economic elite—one of the characters asks, "How can you ask a world that has come to regard cancer as curable, how can you ask such a world to

put away that cure, to go back to the dark days?" Symbolizing a similarly blind desire for "progress" in Snowpiercer—South Korean filmmaker Bong Joon-ho's English-language allegory about capitalist-driven climate change—is the perpetually forward-moving train that preserves earth's last remaining human survivors. Snowpiercer and Never Let Me Go are both science fiction dystopias that are nonetheless anchored in real political crises currently upon us. At the heart of both is the question of how to preserve life within a neoliberal regime that currently sees us on a veritable suicide track. In Collision Course: Endless Growth on a Finite Planet (MIT, 2014), Kerryn Higgs explicates how, rather than produce contentment, the attainment of private property under neoliberalism merely generates a yearning for further accumulation. Reading comparatively, I demonstrate that a "less is more" ethos—or what I call "castration desire"—is traceable through Bong's protagonist Curtis and Ishiguro's clone characters, all of whom "donate" their bodies in order to enable survival for an unseen other. Alternatives to a world otherwise beset by globalized neoliberalism, Bong and Ishiguro's speculative fictions clarify the urgency with which we must desire "castration."

Time Crisis, Mimetic Crisis: Time is Up for Earth in Cixin Liu's "Remembrance of Earth's Past" Trilogy
Packer, Matthew (Buena Vista University; packer@bvu.edu)

Award-winning Chinese sci-fi author Cixin Liu tackles the idea that "time is up" for humanity in his recent, phenomenal trilogy, "Remembrance of Earth's Past." Pitched as a Chinese Star Wars, soon to release on the big screen, and recommended by the likes of Barack Obama and Mark Zuckerberg, Liu's first novel, "Three-Body Problem" posits a mimetic crisis for the Chinese in the late-twentieth century that turns into a crisis for all the planet. The 1960s Communist elite in the novel, planning to outdo the U.S. imperialists, to leapfrog past the American military advantage, take a space shot, sending a message to aliens that then leads to a kind of apocalypse. The alien Trisolarans in the story have at once discovered that their own planetary dependence (around Alpha Centauri) will soon expire—they've failed to solve the infamous three-body problem that governs the irregular tri-solar system they inhabit. The Chinese message, then, they take as an invitation to invade Earth, and Liu uses the international social panic on Earth that follows to examine some of the central questions of posthumanism. At the same time, the drama of the trilogy exposes some of the ways in which planetary time crises—like our own—are really mimetic crises at heart: imitative rivalries that have escalated out of control, with scapegoating efforts failing to contain the violence, all presenting a wake-up call like never before. This paper would outline the trilogy's story and look at the lessons of the mimetic time crises in Liu's creation.

7L "Risk, Vulnerability, and Extreme Futures" *MU225 Yuma*   **Chair: Suzanne Black**

'A State of Mathematical Grace': Risk Society and Probabilistic Causality in the Novels of Ian McEwan
Matthews, Graham (Nanyang Technological University, Singapore; gmatthews@ntu.edu.sg)

Within late-modern Western societies injury and mortality have increasingly become regarded as calculable risks rather than relegated to chance or fate. This cultural shift has occurred as advances in scientific knowledge and technology have significantly reduced the pressure to fulfil

basic needs such as food and shelter while exponentially increasing the complexity of human activities and vastly increasing the role of the expert in society who is nevertheless rarely able to offer certainties. Drawing on the 'risk society' approach put forward by sociologists such as Ulrich Beck and Anthony Giddens, which is characterised by the constant state of concern, anxiety, and dread people feel in relation to environmental threats to human health, this paper explores the ways in which the novels of Ian McEwan portray the modern approach to foresee and control the future consequences of human action and the various unintended consequences of modernisation. Conceptions of risk are socially and culturally mediated as evidenced by confusions of probability, consequence and spectacle. Novels such as *Enduring Love*, *Saturday*, and *The Children Act* portray rationalist protagonists such as a science-writer, a neurosurgeon, and a judge respectively, who are confronted by an unexpected event that instils a new awareness of vulnerability into lives where such dangers had previously felt distant. Although McEwan's protagonists seek an objective 'state of mathematical grace' in the present that would allow them to survey and predict the future with certainty, the event highlights the limitations of 'risk society' in the face of the arbitrary and the contingent.

Filming the Atomic Bomb: Scientific and Avant-Garde Experiments
Goodwin, Hannah (University of California, Santa Barbara; hmlgoodwin@gmail.com)

This paper considers two radically different experimental approaches to representing the atomic bomb on film in the fifteen-year period following the end of the Second World War. First, I analyze a number of atomic test films, drawing on scientific accounts of filming the tests to argue for the resulting films as a particular kind of experimental cinema: they required technical innovations like extreme high-speed cameras and formal experimentations such as slow motion photography. The manipulation of duration, in particular, was crucial for translating the temporalities of the explosions into expanded temporalities that could be measured to produce scientific data. Meanwhile, parallel experimental efforts among US avant-garde filmmakers used the test footage to the opposite effect, critiquing science and its capitulation to violence by recontextualizing atomic imagery within new, discontinuous spatiotemporal matrices that emphasized the disorienting effects and apocalyptic potentials of the bomb. To understand these technically intersecting yet philosophically divergent filmmaking practices, I draw on avant-garde filmmaker Maya Deren's comparison between scientific and artistic processes. Both science and art, she argues, depend on the observation of natural reality, as well as the creative, experimental manipulation thereof. I compare the experimental approaches of scientists with avant-garde filmmakers Bruce Conner and Jordan Belson in registering the extreme spatiotemporal scales of the atomic bomb. What these two distinct filmmaking approaches had in common was a need to expand on available cinematic technologies, experimenting with new kinds of cameras and filmmaking techniques to register phenomena unfolding at unprecedented scales of space and time.

Cycling the Remains in Messianic Time
Halpin, Jenni (Savannah State University; jennihalpin@gmail.com)

Michael Frayn's 1998 science drama, *Copenhagen*, begins rather explicitly after its characters would seem to have run out of time, rejecting therefore its premise that they're all dead and gone. Dead, perhaps, whatever that means, but certainly not gone as Werner Heisenberg and

Niels and Margrethe Bohr gather together in the malleability of an empty theatrical Copenhagen-in-memory. The lawful lawlessness of their reenactments not only traces multiple pasts but also opens their future onto a messianic time marked as a ghostly present bounded by the possibility of the future it ensures. Following Giorgio Agamben's reading of Walter Benjamin and the Pauline letters, I read the overlapping and incongruent pasts of Copenhagen as an architecture of the surplus of present time in the nuclear age.

"Dark Hearing": Sound, Shock, and Sound Ranging in the Physics and Poetry of the Great War"
Black, Suzanne (SUNY Oneonta; suzanne.black@oneonta.edu)

Recent studies on the contributions of science and scientists to World War One have emphasized the importance of acoustics and sound-ranging to the Allied victory. This talk surveys some of that history, including the personal experiences of physicists like Lawrence Bragg and memoirs by other sound rangers. I then propose to apply questions and insights from sound ranging—in particular its study of noise from hidden artillery and its separation of shock waves from sound waves -- to the sounds created and represented in the poems of the Great War, particularly those of the poet-composer Ivor Gurney, Wilfred Owen, and Isaac Rosenberg. While Gurney's poetry often relies on a traditional distinction between the beauty of music and the cacophony of war, I argue that Owen and Rosenberg's more surreal soundscapes approach the world of sound ranging. Sound in Owen and Rosenberg is often overlooked in favor of their visual imagery. However, sound is central to poems like "Dulce et Decorum Est," where the ability to hear the "gargling" of a dying soldier anchors the poem's anti-war message, or to "Dead Man's Dump," where a dying man's "dark hearing" successfully sorts signal from noise.

7M "The Legacy of 4'33" in 6'40" *MU248 Rincon*   **Chair: Hannah Higgin**

The panel format embodies the conference theme of being 'out of time'. PechaKucha is a highly structured lecture-performance format whereby each speaker speaks for twenty seconds each on twenty slides (6.6 minutes per lecture). Like the PechaKucha framework, John Cage's 1952 piece, 4'33", provided a bracketed time frame for three movements of incidental sound. Regrettably, the precision with which the piece is measured is usually ignored by performers and scholars in favor if its more accidental, incidental or open-ended aspects. Even at the time, this emphasis on its everydayness lead to an 'anything goes' atmosphere and mode of experiencing Cage's legacy. Among some of Cage's students in Fluxus, however, this precision was oftentimes essential to the work. Precision may take the form of a metronome, a set duration, calendar time, or close observation of changes occurring in natural time. Most famously, George Maciunas's 1962 Event score, "In Memorium Adriano Olivetti," venerated the inventor of the adding machine by lining up performers to perform 'specific sounds or actions' in 'preferably fast tempo such as two beats per second' fixed by a metronome pulse. Taking its lead from important scholarship on the role of chronophobia and chonophilia in the art of the 1960s, this panel will examine how mechanical, embodied, or organic time structures experience in Fluxus and Happenings, as well as other experimental art, music, film, and performance of the 1960s-1970s.

4'33"

Ox, Jack (Center for Advanced Research Computing at University of New Mexico and Research Fellow at ART/SCI Lab, ATEC, University of Texas Dallas; jackox@comcast.net)

$4(1/2^{FT})33^{CM}$

Freedom Is a Truncated Concept: Fluxus and the Submission to Rules
Rothman, Roger (Bucknell University; rrothman@bucknell.edu)

"Freedom is a truncated concept, an unintended caricature of human relations." Too little has been said of this astonishing claim by Kenneth Burke (*Attitudes Toward History*, 1937/59). For Burke, freedom only makes sense when it's coupled with constraints, willingly embraced: "a collective frame requires us to stress the ambivalence of rights and obligations (which would require a formal admission of strictures)." Burke's insistence upon the absolute necessity of comprehending freedom within a framework of rules is one that scholars of the avant-garde, and Fluxus more precisely, ought to attend with great seriousness. For even the most explicitly "free" of John Cage's compositions, *4'33"*, requires an uncompromising rigidity of form. Unlike almost every musical score to precede it, each performance has taken exactly the same amount of time to complete. Indeed, one could argue--as I will over the course of my 20 slides, each projected for precisely 20 seconds--that the real innovation of Cage and the Fluxus artists who followed his lead lies not in the wild expression of freedom but rather in the willful submission to rules.

GET READY TO READ: dj readies does dys–lexia on the reading machine, 6' 40"
Saper, Craig (aka: dj readies), (University of Maryland Baltimore County; csaper@umbc.edu)

My paper is about the scale and tempo of reading as a physical performance universally effaced by the complete subsumption of reading under literacy. My demonstration of a reading machine at readies.org that disengages from parasitic literacy in order to study reading as a precise musicality needs some art historical background. In 1997, I was just about to introduce Dick Higgins as part of an exhibit I had organized on a type of collective artist publication called Assemblings. I asked him some questions about my introduction, and he made two requests that are particularly relevant to this panel. He said, "Don't use the F__ word to describe my work [and as an aside to me, he added], "you know what the F__ word means?" "Yes," I responded. He continued, "Too many critics use the F__ word to mean "anything goes," and I am against precisely that notion of my work." And, then he concluded, "I'm a classically trained musician; and, my work is precisely constrained music." Much of the work of John Cage is similarly misunderstood in terms of an incorrect definition of the word "chance" as meaning "unconstrained" rather than carefully constrained to resist the habituated response. Similarly, reading outside of literacy has constraints that depend precisely on tempo or the speed of the words in front of your eyes or in your ears. There is a magical liminal moment when the speed leaves literacy, but does not yet become mere patterns or designs. That is the dys—lexia—reading—machine—music (1929/2019).

Programming Randomness is Taking a Line for a Drunkard's Walk: Randomness in the Conceptual and Computational Art Practices of Marcel Duchamp, John Cage, and Lejaren A. Hiller, Jr.

Funk, Tiffany (Editor-in-Chief, *Video Game Art Reader* and Associate Editor, *Media-N Journal*)

Following from Paul Klee's quote, "Drawing is taking a line for a walk," I explore Lejaren Hiller's automation of randomization methods used in the conceptual art performances of both Marcel Duchamp and John Cage: namely the I-Ching, discrete-time Markov Chains, and Markov Chain Monte Carlo Methods.

No Time for *Ekphrasis*
Jarosi, Susan (University of Louisville; susan.jarosi@louisville.edu)

This paper makes an argument for the time for talking, specifically for the kind of talking we do as art historians when we describe works of art. The PechaKucha presentation format is revealing of the different kinds of time required for seeing vs. showing; looking vs. describing; the visual vs. the verbal. The importance of having time for *ekphrasis*, or verbal description of visual representation, is particularly central to performance, because so many works of Fluxus, Happenings, and the genre more generally originate in written scores that are more or less descriptive. We are thus confronted with the task of shuttling between the text and the performance, a space that Michael Baxandall characterized as "excitingly flexible and alive." Iconic scores like John Cage's 4'33" make it abundantly clear that what interested him most was a specific parcel of time, and he used the score as a tool to point to that interest. If the function of performance scores is in this way primarily demonstrative, then Cage's score directs our attention not to silence, nor even to the ambient, but rather to beginnings and ends – not the time of the now, but the time of the when.

Embodied Time: Six Minutes on Speculative Narrative in Fluxus Scores
Woods, Nicole L. (University of Notre Dame; nwoods@nd.edu)

Most scholars of the postwar avant-garde agree that John Cage's *4'33"* (1952), effectively transformed the fields of art and music—compositionally, philosophically—by permanently bridging the proverbial gap between visual and sonic experiences. Moving toward an indeterminate relationship between directive and performance, in which the musical notation ceases to be merely a system of representation and instead becomes a proposal for action, Cage's much-cited revivification of the textual score (here, reimagined as a series of temporal movements) became a foundational tool for artists working in the 1960s and beyond. What has been left unsaid are the ways in which Cage's model instantiates the entanglement of new literary forms within performative expressions of storytelling. In this presentation—told over its own temporal unfolding of 6 minutes—looks to Alison Knowles's early performance scores, including *Proposition #6: Shoes of Your Choice*(1963) and *Proposition #17: Color Music* (1963), in order to sketch the implications of embodied time within Fluxus scores via non-linear, speculative narratives that depend on audience participation and engagement.

From Singular Moments to a Life Time: Duration in Fluxus Events and California Performance Art
Moss, Karen (Critical Studies, USC Roski School of Art and Design; karen_moss@mac.com)

The concept of time in performance events ranges from a singular, often dramatic moments to more attenuated periods that may last hours, days, or even years. This presentation examines how the circumscribed time frame in Cage's 4'33 and durational activities in Fluxus event scores are echoed in California performance art of the late 1960s and early 1970s. Often these events and performances revolve around a singular action, such as a gesture or a physical engagement with an object, or a more embodied experience—the act of eating, talking, walking or sleeping. More specifically, I will be comparing Fluxus scores and events by artists George Brecht, Dick Higgins, Alison Knowles, Nam June Paik, Ben Patterson, and Ben Vautier from the 1960s with performances and durational activities by Bas Jan Ader Chris Burden, Lynn Hershman, Tom Marioni, Linda Montano, Bonnie Sherk, Barbara Smith and Al Ruppersberg from the 1970s. With these direct comparisons I will demonstrate how the concept of time is expressed differently in pre-determined constructs or scores, the length or distance required to complete an action, and the conditions of the particular site or context. Ranging from very brief, task-oriented events to more durational experiments in living, these performances engage the everyday, explore the environment and test the limits of the physical body and/or the psyche, each within their own temporal sensibility. Ultimately time may function as an immediate act of dissonance or disruption, a moment for contemplation of nature or the sensory perception, or as a device to frame everyday life.

Time is a Tapir*
Anderson, Simon (School of the Art Institute of Chicago; sanderson2@saic.edu)

French philosopher Henri Bergson asserted that the essence of time is to flow, making additive measurement 'impossible, unimaginable, inconcievable': nevertheless, this presentation will give twenty seconds to twenty Fluxus items or events which feature time in different ways. In 1965 Alison Knowles defined it in her *T Dictionary*;
time *n.*1 There is a man living on the coast of Canada who is devoting his life to the study of otters. (see TAPIR)
From split seconds to evolutionary eras, Fluxus artists inevitably played with time: from George Brecht's 1959 exhibition *Toward Events* at the Reuben Gallery, whose announcement featured a time-scale from 0.0 to 22.2 seconds, to Ben Vautier–who signed time in 1961. Yoko Ono's work of the period includes a whole population with incorrect clocks, as well as a fifty-year Venus. Vertiginous shifts of time-scale and measurement are ubiquitous within Fluxus yet can still startle. I will hope to show that their play can serve to bring our fixed attention on to time–which continues to pass.
***tapir *n.*1 The camel was once the size of a greyhound, and the horse the size of a fox. The tapir hasn't changed at all.
Knowles, Alison *'T' Dictionary* Something Else Press, New York. 1965

Workshop Session 7: "Coordinations and Coarticulations: Enacted Experiments and Games with Responsive Media" *Matthews Center 2nd Floor, MC218*
Johnson, Garrett Laroy (Arizona State University; garrett.l.johnson@asu.edu)

The British Dictionary defines the prefix "co," of Latin origin, as meaning together; joint or jointly; mutual or mutually. "Co-" spills the notion of "togetherness" over the boundaries of the spatial association of proximity (to be together) and into much broader category of "group

activity" cooking, collectivized movement dynamics like a group of people walking, or games like tag, cooking a meal together.

A sense of wonder about this collectivity is the kernel of this workshop. What are togetherness and coordinations? What are the conditions under which they emerge? Can we create the conditions for enacted events to get a non-reductive sense of group coordination and ensemble? We will pursue these questions in enacted play, games and experiments with responsive media apparati and media-enchanted stuff.

Workshop Session 7: "Imaginative Ecologies: A Workshop in Speculative Fiction and Ecopoetics" *The Virginia G Piper Center for Creative Writing*
Kenney, Martha (San Francisco State University; mkenney@sfsu.edu)

In the face of an ongoing environmental crisis, how can speculative fiction, poetry, imaginative ethnography, and other kinds of creative writing help us respond to ecological damage and collectively build more livable worlds? How can experimenting with genre and form re-orient our research and connect us more strongly with our "matters of care" (Puig de la Bellacasa 2010)? For this workshop, we invite feminist, queer, antiracist, and decolonial scholars, writers, scientists, and artists working on the politics of environment to explore the potential of writing fiction and poetry together as a creative response to climate change, extinction, extreme energy, nuclear radiation, air pollution, and other urgent environmental concerns. With a focus on process not product, we intend to foster a space of support and community for SLSA members interested in trying out experimental forms of writing. Interested participants should submit a short piece of fiction, poetry, or other creative work (less than 900 words) to Martha Kenney (mkenney@sfsu.edu) three weeks before the SLSA conference. The manuscripts will be circulated among the participants prior to the workshop. Individual and collaborative pieces are welcome. If you've never done creative writing before, do not worry! We are looking for messy and promising provocations, not polished manuscripts. The purpose of the workshop is to generate different kinds of stories capable of engendering multiple ways of attending, responding, and relating within our more-than-human world. Max 25 participants.

Saturday, November 11, 2017, Session 8: 11:00 AM – 12:30 PM

8A "Separatist and Synthetic Environmental States: Ecotopies and Biospherical Discontents" *MU236 Mohave*   **Chair: Meredith Sattler**

Deploying Catastrophes: On the Horizons of *Ecotopia Emerging* and the "Ecomodernist Manifesto"
Stentiford, David (Stanford University; ds1@stanford.edu)

Ecotopia Emerging (1981) is Ernest Callenbach's prequel to his best-selling novel *Ecotopia* (1975). Comparatively, this multi-perspectival road-map to a separatist environmental state on the Pacific Rim experiments with a more inclusive sociality of characterization, and serves to fold the original text into a kind of self-reflexive criticism when the novel figures as a problematic revolutionary document: Emerging, in its blueprint for environmental revolution, fictionalizes the publication of the original novel in 1970s California popular culture, and uses this text as source material to narrate the break anew. This paper thinks with the utopian

temporalities of Ecotopia Emerging and the "contemporary" horizons of the jointly written, non-fiction "Ecomodernist Manifesto" (2015). My aim in this paper is to say something general about how these two different texts organize the temporalities of environmental disaster in their arguments for reorganizations of energy infrastructures. Here I track how Callenbach and the self-described Ecomodernists deploy environmental pollution as immediacies and how they invoke planetary and cosmological time to rationalize alternative visions of energy use. At stake between these imagined worlds are politics of air pollution, nuclear energy, decentralized renewable power production and competing cosmological economies of sustainability.

Ecotechnics and Time: Reading the Terrarium

Woods, Derek (Dartmouth Society of Fellows; derekjohnwoods@gmail.com)

Ecotechnics and Time: Reading the Terrarium What is "ecotechnology" as distinct from biotechnology and the cultural concerns it motivates? Is it possible to create an artificial ecosystem, and if so, what kind of artifice would it be? What does the relation among experimental architectures such as Arizona's Biosphere 2, speculative science writing such as Gerard K. O'Neill's 'The High Frontier' (with its proposals for space biospheres), and science fiction such as Joseph McElroy's 'Plus' (with its subject becoming self-aware inside an orbiting terrarium) tell us about these questions? My analysis attends to the difference between bio and eco, or between evolutionary and ecological concerns, tracking the history of such distinctions in ecology as a science and in texts that imagine ecosystems by rendering them artificial. In a development of Bernard Stiegler's concept of epiphylogenesis in Technics and Time, I argue that we can rethink his definition of technics as the "continuation of life by means other than life," understanding it as an extension of the ecosystem rather than the evolutionary lineage. Describing ecotechnology in this way raises the further question how Stiegler's approach to the technological production of time relates to the ecosystem's self-organization. Stiegler's technological critique of Husserl allows a return to the question of "harmony" and (dis)equilibrium in environmental politics, suggesting a model of how ecosystem time and human time interact.

Divergent Durations: Synthetic Temporalities within Biosphere 2's First Enclosure Mission, 1991-1993

Sattler, Meredith (Cal Poly SLO; sattler@calpoly.edu)

Biosphere 2 [B2] generated and complicated divergent temporal cycles during its first enclosure mission of 2 years and 20 minutes, which commenced at 8:00am on September 26, 1991. Constructed as a laboratory-apparatus modeled after Earth's [Biosphere 1] ecosystem service provisioning, its unique architectural envelope housed over 3,600 species entangled within a 'Human Experiment,' designed to test eco-technical applications for long-duration outer space colonization. B2's materially-closed but energetically-open spaceframe-bathtub facilitated unprecedented quantification of atmospheric molecular exchange. Once sealed, this edited and enhanced Earth, shrunk 30 trillion times, began to evolve separately from B1, despite its tether to solar diurnal rhythms. Because of B2's small scale and eco-technical innovations, it produced accelerated biogeochemical cycling: carbon cycled every 4 days, evapotranspiration driven precipitation cycled approximately 3 hours, and no water molecule stayed in its ocean residence for more than 1,200 days, compared to Earth's 10,000 year average hydrologic cycle. Mission

crew member Abagail Alling stated "It's small enough that things happen fast...because it's so small, you could see immediate changes" [Alling, 2015]. This rapid molecular exchange not only implicated Biospherian bodies, but also their psyches. Crew member Jane Poynter has described breathing as a literal act of embodied connection. When you breathe you internalize "...CO_2 from the person sitting next door to you, maybe there is a little bit oxygen from some algae on the beach not far...[Breath] also connects us in time. There may be some carbon in your breath from the dinosaurs." [Poynter, 2009].

8B "Forms of 'Life,' Norms of 'Life,' II: Contextualizations" Papers from the Society for the Study of Biopolitical Futures *MU228 Cochise* **Chair: John Protevi**

Economies of Violence
Protevi, John (Louisiana State University; protevi@lsu.edu)

In *A Thousand Plateaus* Deleuze and Guattari write of the differences among imperial States, juridical States, and what they melodramatically call "war machines": "Violence is found everywhere, but under different regimes and economies." A regime or economy of violence would be the pattern of approved and disapproved violent *and peaceful* (violence-avoiding, conflict-resolving and mitigating) acts and responses characteristic of a particular social system. I want to shift the focus away from the preoccupation of political philosophy and political theory – the constituted state and its others (domestic criminals, foreign enemies, marginal terrorists) – to look the economy of violence inherent in the practice of "statification" – the ongoing process of producing the state form of social relations as it intersects various non-state socialization practices. ("Statification" is the ugly translation of *étatisation*, but at least it's better than "statizing"). So in a formula, I want to broaden political philosophy / theory to include concerns often confined to anthropology. I will follow Deleuze and Guattari, and some of their anthropological sources on "societies against the state," Pierre Clastres, Marshall Sahlins, *Stone Age Economics* (1972), and a very good recent book by Guillaume Sibertin-Blanc, *Politique et État chez Deleuze et Guattari* (2013). In addition, James Scott's *The Art of Not Being Governed* (2009) will be in the background here, as will Christopher Boehm's *Moral Origins* (2012).

Cray Wisdom: The Divine Madness of Philip K. Dick
Doyle, Richard (Penn State University; mobius@psu.edu)

"The delusions of a penurious science fiction writer might seem of marginal interest, except that Philip K. Dick was not just any science fiction writer." Charles Platt on Philip K. Dick's Exegesis
"...we explore further and further and further without looking for an answer. [...] We look further and further. We ask: "Why is this so?" Why is there spirituality? Why is there awakening? Why is there this moment of relief? Why is there such a thing as discovering the pleasure of spirituality? Why, why, why?" We go on deeper and deeper and deeper and deeper, until we reach the point where there is no answer. [...] At that point we tend to give up hope of an answer, or of anything whatsoever, for that matter. [...] This hopelessness is the essence of crazy wisdom. It is hopeless, utterly hopeless." Chogyam Trungpa
Between 1974 and 1982, writer Philip K. Dick composed a massive "Exegesis" in response to a mystical event of 1974. Whose was it? Dick's writings, composed in daily entries, ranged over

scientific, philosophical, religious and spiritual ideas in order to make sense of what he eventually dubbed an ongoing event of "ultra meta cognition." Dick's relentless quest to observe and fathom the nature of consciousness – what *was* he such that he could imagine being in unavoidable contact with what he called a Vast Living Intelligent System (VALIS)? - has been frequently met by responses such as Platt's above. Dick's intensely acute observations of his own consciousness - "ultra meta cognition" - are often viewed as "hallucinations" or "delusions" even while Dick himself insightfully articulates his experience through learned readings of monistic thinkers such as Shankara, Plotinus, and Spinoza, hardly the realm of raving madness This tension between the learned and intensely erudite writings of Dick and the response of contemporary readers to it as 'delusion" suggests that for contemporary audiences, intensely pursued introspection is itself "cray." What role does this exclusion of intensive subjective experience play in the ongoing articulation of a biopolitical governance? This talk will explore the Exegesis as a manifestation of what Chogyam Trungpa dubbed "Crazy Wisdom", a relentless search for enlightenment that surrenders any hope for an answer. Was it precisely in this surrender that Dick perceived what he observed as the pink light of Valis?

8C "Necropolitics and Temporalities" *MU240 Navajo*   **Chair: Avery Everheart**

Medusa, Colonial Racism, and Coral Bleaching
Hayward, Eva (University of Arizona; evah@email.arizona.edu)

Corals are among the largest living organisms, containing the most diverse ecosystems on the planet, and serving as global sources of carbon and nitrogen fixation (conversion). Changes in water temperature, seawater salinity, and overexposure of toxicity have resulted in coral bleaching, the expelling of photosynthetic zooxanthellae (plant-based parts of coral), which result in the starving of the animal. In January 5, 2017, the United Nations Environment Program reported the probable extinction of corals within 50 years. Focused on coral bleaching, this paper turns to Ranjana Khanna's provocation that Freud's psychoanalytic figure of Medusa (the mythic gorgon whose blood bound with seaweed to create corals—members of the phylum Cnidaria are still named after her—and gave the "Red Sea" its name) describes not only the threat of sexual difference, but also racial difference (Dark Continents: Psychoanalysis and Colonialism, 2003). In describing colonization, Khanna argues that the threat of castration is marked equally by the position of women (what Freud referred to as "a dark continent") and Africa (the colonial context of Freud's psychoanalysis). Freud's conflation of "primitivism" with women reveals not just the racial unconscious of psychoanalysis, but also how the colonial scene served as both "the threat of castration by the terrifying Medusa that is Africa" and its disavowal through racial violence. This paper asks: How might we conceptualize coral bleaching as an effect of colonial racism? What is the position of racial/sexual difference in ecological catastrophe? Can psychoanalysis augment and complicate environmental discourse?

"Hidden Beneath the Loveliest Tints of Azure": Rhizomatic Temporality in Ellen Gallagher's *Watery Ecstatic* **Series**
Bakker, Justine (Rice University; jb57@rice.edu)

This paper offers a reading of African American visual artist Ellen Gallagher's *Watery Ecstatic* series, an ongoing collection of films, cut-outs, drawings and paintings. I argue that the series imagines what Édouard Glissant (1997) called the "threefold sense of the abyss"—the abysses of leaving Africa in the slave ship, the Middle Passage, and disorientation and alienation upon arrival—as a womb that gives birth to new forms of temporality. More specific, I draw on the scholarship of Glissant (1997), Snead (1996), and Deleuze and Guattari (1987) to explore how Gallagher's repetitive use of the same figures and tropes in different oceanic contexts invokes a tangled, distorted and rhizomatic temporality. I focus specifically on Gallagher's recurrent portrayal of the disembodied heads of African women. In several drawings and films, they are imagined as the descendants of those who were thrown overboard, a half fish, half human marine species that continues to thrive in the "Bubble Metropolis". In her cut-outs, they constitute the border of Sao Tome and Principe, the site of plantations and slave labor, and an imaginary island, the site of future possibility. As such, these figures project imaginaries of the future and cut into the past, such that past, present, and future collapse. The series thus uses "repetition with a difference" (Deleuze and Guattari 1987; Nealon 1998) to advance a rhizomatic way of thinking about time and history that is outside of the context of the Western master narrative of progress, continuity and linearity.

Transitions, Timelines, and Trajectories: Toward a Theory of Trans Temporality Through Black Critical Thought and Technologies of Gender Affirmation
Everhart, A. Rose (University of Southern California; everhart@usc.edu)

Historically, narratives of transition for transgender and transsexual people have been teleological and chronological. However, in the wake of globalization, advances in biomedicine, and the continued development informal economies, the avenues for the realization of one's medical transition goals have increased exponentially. With a focus on transfeminine bodies and subjects, this paper takes up testosterone blockers, injectable estrogen, and theories of queer and trans necropolitics to think through the temporalities of transition for trans women and femmes. Through a simultaneous deployment of critical race theories with emerging theories of trans political economy and queer/trans necropolitics, this paper traces estrogens and testosterone blockers through their temporal trajectories as technologies of gender transition as simultaneous to their complex roles in racialization processes. How, then, could theories of temporality in black critical thought and new work on trans political economy and necropolitics enrich and complicate one another? In tracing these technologies of transition, this piece thinks about the racial politic of refusing or complying with expected transition timelines and the delineation of the "good" and "bad" trans body. I contend, therefore, that trans temporality could and should learn from black thought on time. Ultimately, the paper asks are technologies of gender transition, like estrogen, racialized? Do they racialize the subjects/bodies that seek them? Or does following their trajectory only reveal the agents at work in the bio/necropolitics of transition timelines? Finally, how does a rigorous engagement between transgender studies and literature on race in science, technology, and medicine enrich our answers to these questions?

8D "After the Human: Plant and Animal Histories and Imaginaries" *MU242A Lapaz West*
              Chair: Christy Tidwell

Planting the Apocalypse: Posthuman Temporalities at the End of the World
Marchand, Jeffrey (The University of Texas at Arlington; jeffrey.marchand@mavs.uta.edu)

In the post-apocalyptic worlds of multiple popular dystopian imaginings, vegetal life, or the future of it, features as a significant theme in narrating the future possibilities of human beings surviving a notably hostile more-than-human-world. These vegetal trajectories are often overlooked within the posthuman project, as value judgements are often articulated within a biopolitical schematic that takes animal life, and its shared vulnerability, as 'the' common point of reference. Yet, narrating the end of human time in popular apocalyptic tales often relies on the widespread trope of the future possibility of growing and cultivating plant life in an environment that can no longer sustain vegetal ways of being. Building on the growing scholarship in critical plant studies and ecocriticism, I suggest that popular apocalyptic narratives that include plant life as the key to human futures entangle the "human" within vegetal temporalities, urging audiences to understand our future possibilities of biological flourishing in terms of flora/fauna co-constitutive, intra-active becomings. Building on Michael Marder's sense of plant time and Mathew Hall's plant morality, I locate a fruitful (perhaps, hopeful) space within these narratives for discussing how vegetal and animal (human or not) vulnerabilities and temporalities become intertwined in apocalyptic stories that focus on the fallout of ecological crises. In our current and continuing anthropocenic moment, these co-constituting relationships must be understood in greater detail if we are to have any hope of surviving in the Anthropocene; thus, these narratives serve an important function by propagating ecocritical understandings in the popular imagination.

The Creeping Menace: Plant Horror, Climate Change Narratives, and the Problem of Speed
Tidwell, Christy (South Dakota School of Mines & Technology; christy.tidwell@gmail.com)

Both plants and climate change are pervasive and yet invisible; this invisibility is due in part to their slowness. Plants move so little, so slowly, and so differently from us that we frequently perceive them as not even alive (as Michael Marder argues), and climate change occurs on a time scale larger than a human life. This slowness challenges the capacities of our senses to truly understand them. Understanding plants and climate change, therefore, requires a distinct mode of representation. A turn to plant horror provides one such possibility. Plant horror makes vegetation visible by making it monstrous, revealing the vegetable world as beyond our control and far more powerful and dangerous than we suspected. Lacking a recognizable villain, the genre often relies on distortion of the threat (e.g., trees that walk, vines with malicious intent). Climate change similarly lacks a recognizable villain, and the anthropomorphism and distortion of time used in plant horror might be productively applied to its representations. This has risks, obviously – embracing anthropomorphism and distortion compromises accuracy and works against the grain of years of ecocritical thought – but perhaps they are worth taking. After all, horror audiences know that the threat represented isn't real, but it still scares them; climate change narratives could use a similar logic, the audience knowing that the representation isn't precise but being frightened nevertheless. Ultimately, we need stories that un-blind us and challenge our sense of mastery of the natural world; we need stories that, like horror, work viscerally.

History After The Human
Vandersommers, Daniel (Consortium for History of Science, Technology and Medicine; vanded14@mcmaster.ca)

Over the past few years, the Humanities have been confronting a paradigm shift. After the Cultural and Linguistic turns of the 1970s and 1980s, language, meaning, representation, agency, othering, and knowledge-production redefined the Humanities. Now, in 2016, new media, climate change, environmental catastrophe, terrorism, genetic engineering, population growth, and globalization, destabilize the core of the Humanities. These forces (hyperobjects?) are larger-than-human. They are seismic. They are shifting intellectual terrain. And they require a change of perception, a new vision for a new century. As the macro, the "beyond-the-human," quake the ballast of the Humanities, animals have emerged from the fault lines and fissures. Though animals were domesticated, commodified, and ultimately silenced between the late-Paleolithic and the Present, their voices have begun to resound across the Humanities as it turns toward the Anthropocene. This paper will explore the ways in which animal voices are reverberating within the historical profession. After tracking animals through the environmental history of the 1990s and 2000s, this paper will look toward the new horizons of "animal history." Not only will this paper seek to define this emerging field, but it will outline the ways that "animal history" (indeed animals themselves) can creatively uncover a livelier, more truthful, and complex past buried beneath an anthropocentric historical tradition.

8E "Spectregrams: Spectrality Before and After Media" *MU242B Lapaz East*
Chair: David Cecchetto

Let's face it, the "time-resolution trade-off" understanding of perception is nonsense, unless by resolution one means the world's singular incompatibilities with itself. And yet, it does point us towards the role of media—or rather, mediation—in the conflations of time and objects that make up our perceptual realities. Take the case of full spectrum cameras, on the one hand: by removing the standard UV coating from a commercial lens, these cameras become a basic tool for ghost-hunters, who find what they seek in that range of light; the ghosts were always there, we just had to look through an apparatus that at once extends the temporality of our vision and removes its blinders to see them. On the other hand, though, consider the case of THC: the tendency to hallucinate incipient meaning in sounds—to hear, for example, the wind as a whisper voice—comes about (neurologically) because the drug *inhibits an inhibitor,* which is to say suspends or slows down an in-born tendency to hear such meanings. Here again, something is removed to make the spectres audible, but importantly this time it is the *doubledness* of the removal that causes the effect; that is, we must make ourselves more in-born than we ever are in order to sense what we already perceive. Between these two exemplary cases, then, spectrality emerges as a question of mediation in the precise sense that sensibility lies in insensibiility; that is, in the way that shifts, slips, substitutions, and excesses produce the particularity that is the basic condition of…well, everything. This panel explores such sensible singularities, which is to say explores the nexus of imagination, perception, and media through encounters with spectres.

Integral nonsense: Listening through Fourier to microtemporality's (primary) macro
Cecchetto, David (York University; dcecchet@yorku.ca)

Let's face it, the Fourier integral is nonsense. Indeed, it works for precisely this reason. In the realm of audio, Fourier analysis essentially means that any sound can theoretically be synthesized with a degree of fidelity equal to the fidelity of the "captured" audio by transforming the time-domain waveform of the original sound into a series of frequency-domain waveforms that are played back in succession. This approach, though, has the obvious technical limitation that appears in all simulational economies: it requires a potentially infinite number of oscillators that are capable of being controlled at an infinitely fine grain with immediate responsiveness. The Fourier *integral* affords a computational solution to this limit by substituting the *innumerable* and nonperiodic possibilities of real numbers (numbers such as π, for example) for the formal *infinitude* of wave spectra; in short, it enables periodization of the nonperiodizable, thus approaching the real asymptotically in a way that "technically expands contact with worldly sensibility" (Hansen). If this means that the microtemporal has become independently addressable and manipulable such that we can dissociate sensibility from "the 'how' of experiencing" though, the inverse is also the case: the bringing to sensibility of this radical exteriority—which is to say the relativizing work of language itself—affords tentative purchase on the further expansiveness of a notion of experience that conceives itself as firstly nonsensical.

A Word on the Liveness and Death of Cinema
Egan, Kelly (Trent University; kellyegan@trentu.ca)

Let's face it, words are nonsense, especially when contrasting their abstract meaning with their material spoken or written form; the written or spoken word is insignificant without its indexical relationship to the object it signifies. However, through the optical soundtrack on a filmstrip, words can be read and spoken by the projector based on their shape, size and form as material objects. Animated sound film has been making sense of the nonsense of words—or, at least, letters—since the 1930s. Optical sound on film is produced by light fluctuation: the soundtrack on the filmstrip interrupts a beam of light pointed at a photocell, the product of which is translated into an electric pulse (an invisible spectre created by the space between light and dark emulsion on the soundtrack) which is then relayed to an amplifier and out through a speaker. In my films, which I will be discussing in this paper, entire narratives are written on the soundtrack and read aloud by the projector. The audience is often unsure how to comprehend these words-as-sensed because in making sense of words, in seeing and hearing them as objects, their indexicality is lost: on one hand the indexicality of the meaning; on the other the indexicality (and contingency) of cinematic time (and, thus, how we have come to understand the medium). As this paper will discuss, through optical sound film, in making the object-nature of words visible by first translating them into the invisible (electricity), words are released from their nonsensicality.

Heautoscopic Visualizations
Hiebert, Ted (University of Washington, Bothell; tfhiebert@gmail.com)

Let's face it, heautoscopy is nonsense, especially if by nonsense one means the underlying conditions for the constitution of sense. What is usually thought of as a neurological afflication—the hallucination of seeing one's own body at a distance—is actually a general condition of life in an age of visualization. The precarity of visualization (and of heautoscopy

too) is its faith in an alternate presentation of data, not the rendering-visible of what cannot be seen but a technical refusal of invisibility. To paraphrase Jean Baudrillard, if visualization were to take a lie-detector test it would have to confess to not believing in itself. Alternate facts or, seen more optimistically, spectregrams. Take the example of full spectrum photography, whose ability to capture non-visible data relies on removing a filter designed to synchronize the apparatus with human perception. When this filter is removed, a camera can record infrared and ultraviolet light—light normally too fast or too slow to be visible to humans, consequently *inhuman* light (or light oscillating at inhuman frequencies). Full spectrum photography allows the human to see the world from a position outside of its own body. And as with all ghost stories (and perhaps all images) full spectrum data exists not just outside of human appearance but outside of human time. This paper explores the nuances of full spectrum photography as a metaphor for heautoscopic experience, emphasizing the ways that spectral presences challenge the conceptuailization of appearance, temporality and interaction.

Indie Game Hauntology
Mitchell, Liam (Trent University; liammitchell@trentu.ca)

Let's face it, the distinction between the diegetic and the extradiegetic is nonsense, particularly when it comes to narratives told through new media. The limits of this distinction are perhaps most apparent in videogames, where designers and players are aware of one another being aware of one another, where even casual players become designers through metagaming practices, and where the characters of the world notice all of this back-and-forth and act accordingly. The fictional worlds of videogames have only ever existed with reference to a knowing outside. Take the indie roleplaying game *Undertale* (2015): Toby Fox, the designer, seems to have constructed its narrative with metagaming practices in mind. The game is at its most provocative when it reveals the centrality of these practices to its narrative – something that it does only when the game's time slides out of joint. Through deep play and datamining, *Undertale*'s fans uncovered a set of hidden characters and speculated as to their meaning: Chara, a controlling presence who appears only to the completionist willing and knowledgeable enough to massacre every living thing in the game, is driven by the need to do something far more violent than "setting time aright," and Gaster, the specter who appears through file manipulation and spectrography, is "shattered across time and space." Temporally confused and complicated in their relationship to the game's designer and its fans, these characters work hauntologically. *Undertale* thereby illustrates the constitutive disjointedness of the medium's temporality.

8F "Beyond Plant Blindness: To See the Importance of Plants for a Sustainable World"
Matthews Center 2ⁿᵈ Floor iStage, MC222   **Chair: Bryndís Snæbjörnsdóttir**

Life as a plant may appear static and quiet. But recent research shows that plants often have both complex and social lives. Previous research has demonstrated our general inability to pay attention to plants. For many reasons, not least their very different temporality, it is considered to be human nature to ignore the plant world and to perceive it instead as a green backdrop and resource only. But plants are the basis of life on Earth. Put quite simply; plants are the new animals —objectified by science, deprived of ethical considerations, and exploited by capitalism. Culturally, like animals, plants have been subjugated through complex representational strategies. This is why it is also important to look at the presence of plants in past artistic representations before engaging with contemporary practices that attempt to upturn plant

objectification. How can what we have learned through years of animal-studies research assist us in crafting new methodologies that might bridge relations between us and the ultimate otherness of plants?

Interior With Plant, Reflection Listening
Aloi, Giovanni (Antennae Project & School of the Art Institute of Chicago; antennaeproject@googlemail.com)

German born, British painter Lucian Freud is internationally known for his paintings of models that provocatively challenge the art historical tradition separating the naked from the nude. But beyond this celebrated (of course) anthropocentric focus, the artist's career is dotted with many interesting, highly original, and regularly under scrutinized paintings whose prominent subjects are plants. These are the works that usually leave art historians short of words, thus remaining suspended in an enigmatic dimension of frustrated, cryptic, symbolic allusiveness. In *Interior with Plant, Reflection Listening* (Self-Portrait) from 1967-68, the lush foliage of a potted variegated pandanus takes up most of the canvas. On the left-top corner, fading in the background is a self-portrait of the shirtless artist with a cupped ear and closed eyes. Based upon the initial sense of uncertainty caused by the non-affirmative composition, I explore the possibility that the artist is here alluding to a certain presence of the plant which bears coincidental, but yet important, parallelisms with Derrida's impromptu encounter with his cat in 'The Animal that Therefore I Am'.

On Trying to Understand Life as Plant
Dawn Sanders (Gothenburg University; dawn.sanders@gu.se)

Plants live in a different time zone to mammalian life. Consequently, they can appear still, silent and passive to human perception. This is dependent on the cultural environment in which plants live and their associated narratives. In contemporary city life the complex morphologies and behaviours plants possess are often reduced to simple contextualised categories such as "house-plant", "street-tree," and "food". These categories speak nothing of the contributions plants make to the ecological fabric of life on Earth; neither do they acknowledge the complex and socio-biological systems within which they exist. In this presentation we consider these perceptual blank spots in relation to an interdisciplinary research project in which artistic, scientific and didactic narratives coalesce in order to represent plants through new ways. In particular, scale-jumping biographies are used to visually foreground the structures of seeds over their adult form with their human collectors stories placed as a footnote. In the same room the growing form of the seed is present; the viewer makes the connection through the plant labels, thus actively enacting textual connections between represented and living forms of the seeds they meet on the wall of the gallery. In another installation, one specific seed- Stipa pennata- is made large only to vanish in a richly coloured meadow in the next installation. Thus, reproductive structure and adaption are made public, and specific, in one context whilst the plant's competitive struggle amongst many, sometimes blurred, plant forms is in focus in another.

Searching for Stipa: revealing plant biographies across habitats
Snæbjörnsdóttir, Bryndís (Iceland Academy of the Arts; bryndish@lhi.is)
Wilson, Mark (University of Cumbria, Institute of the Arts, UK; mark.wilson@cumbria.ac.uk)

In this cross-disciplinary project the artists Bryndís Snæbjörnsdóttir and Mark Wilson, have worked for over three years with Dawn Sanders and Eva Nyberg at Gothenburg University, and Bente Eriksen Lööf at Lund University on the project 'Beyond Plant Blindness' (BPB). The resulting site-specific art installations, exhibited in three different locations in Botaniska, the Botanical Garden in Gothenburg Sweden are the outcome of Snæbjörnsdóttir/Wilson's research (2017). This paper will discuss the art works involved. It will explore through images and texts the stories behind selected individual seeds and plants as they appear in the work, their journey and how these came to be in their current location. Ideas and responses relating to the artworks and their exhibition within the context of the Garden will also be discussed. A particular focus is the remarkable south-European steppe grass (Stipa pennata) which has inexplicably grown in isolation for over 3000 years on a diminutive scrap of land in Sweden. It is now endangered here and amongst other things, the artwork highlights contrasting approaches to its conservation. The exhibition in the Botanical Garden is part of the ongoing research project (BPB), at the University of Gothenburg, led by associate Professor Dawn Sanders at the Department of Pedagogical, Curricular and Professional Studies. www.snaebjornsdottirwilson.com

8G "Game Studies 5: Alternate Realities" *MU238 Apache*   **Chairs: Heidi Coleman and Patrick Jagoda**

This panel explores the manifold potentials of alternate-reality games (ARGs) and posits a broader spectrum of play styles and motivations than is commonly ascribed to games.

Parasitical Pedagogies: Games, Performance, and Alternate Realities
Coleman, Heidi and Patrick Jagoda (University of Chicago; coleman@uchicago.edu; pjagoda@uchicago.edu)

Alternate Reality Games (ARGs) are a form of experimental games that originated in the early twenty-first century. Most games in this fledgling category, including Microsoft's The Beast and 42 Entertainment's I Love Bees, function as collaborative experiences that use the real world as a platform, blurring the lines between games and reality. To accomplish this fusion, these games incorporate a wide breadth of everyday media types including text, video, audio, print, phone calls, websites, email, social networks, locative technologies, and live performance. In ARGs, players interact directly with characters, solve plot-based puzzles to advance the narrative, and build a collaborative community to coordinate real-life and online activities. This presentation explores an ARG developed by a design team at the University of Chicago to augment the orientation for the class of incoming undergraduate students. This interdisciplinary team brought expertise in the arts, humanities, and social sciences to bear on issues of orientation, habit formation, and learning. In particular, the game used techniques of performance, gaming, and new media culture to create an intervention to help underrepresented students (e.g., students of color, low SES students, and first generation students) acclimate to the university setting and to help all students develop capacities linked to collaboration, leadership, inclusivity, and digital media literacies. This presentation examines the affordances of transmedia games in intervening in the historical present and using improvisation in order to impact an institutional culture.

Weird Fun and Normal Fun: On the Concept of Play-Style

Saturday, Session 8 11:00am-12:30pm

McDonald, Peter (University of Chicago; pdmcdonald@uchicago.edu)

That people play in distinct ways has been an important part of the psychology of play since at least Josefa Lieberman's Playfulness (1977) and part of game studies since Richard Bartle's typology of socializers, killers, achievers, and explorers (1996). Such folk taxonomies are a common part of a game designer's repertoire, and include distinctions between, for example, lurkers and active-players within alternate reality games. However, the concept of play-style itself has come in for relatively little investigation. In this paper, I propose some ways of moving away from psychological categorizations--which imply a homology between personality and play behavior--toward a notion of style that functions at larger and smaller scales. A single player can move between several styles over time, and distinct styles also characterize local, national, and historical ways that play is practiced. I propose some axes along which style can be measured, and some differential criteria that distinguish style from related concepts like strategy or playfulness. Following Thomas Malaby's anthropological work on gambling games in Greece, I argue that uncertainty and risk are the core organizing traits of play-style, and what helps to distinguish play from other ways of performing and practicing in everyday life (2003).

Being (Re)Framed: Dark Play as Affective Labor in the parasite ARG
Pruett, Jordan (University of Chicago; jpruett@uchicago.edu)

Much of the literature on alternate reality games (ARGs) observes that the form relies on a radical blurring of lines between play and sincerity, an ambivalence that aligns them with what Richard Schechner calls (1988) "dark play," or play that actively subverts its own metacommunicative framing. Although Schechner does not historicize dark play, this blurring is especially relevant during an era of capitalism in which labor is increasingly performative and affective, as scholars such as Sianne Ngai (2015) have observed. ARGs depend on the radical convergence of categories such as work and play, production and consumption, making them a quintessentially contemporary cultural form.
The *parasite* ARG—a game designed for the 2017 University of Chicago undergraduate orientation—explored the contemporary convergence of work and play not only in its form and content but also in the process of its production. For the design team, during the three months of the game's production and deployment, work was play and play was work. The designers' personal social media accounts entered the game's fictional diegesis and performative roles persisted outside of time explicitly "at work." The actor-character-player-designers of *parasite*, then, stand in as an exaggerated portrait of all immaterial laborers during late capitalism, from flight attendants who struggle with "turning off" their performance to programmers whose Slack notifications can hail them at any time or place. I contend that *parasite* poses productive questions about work and leisure at a time when, as Paolo Virno suggests, "all labor has something in common with the 'performing artist.'"

8H "Roundtable: Comics, Scale, and Time" *MU229 Santa Cruz* **Moderators: Susan Squier and Juliet McMullin**

In this roundtable, we will propose to examine how the medium of comics relies on the use of scale to investigate the incommensurate temporalities that humans and our symbionts (microbes,

viruses) navigate in the present era. The four panelists span four (or more) different disciplines, and in our roundtable we hope to draw out participation from audience members in still other disciplines, as we consider comics addressing the theme of "Comics, Scale, and Time." The participants will examine how comics address: the conflicting scales of time between 'science' and indigenous storytelling; the ways that relational concepts such as time, scale, and place are visualized as moments of health and health care in Indigenous graphic narratives; how the rhetorical deployment of scale in a comic challenges the ways we frame the institutions of medicine, warfare, biography, and geography; and how health care comics operate off of a nonlinear narrative structure that allows readers to evaluate our pasts and futures, while also reexamining our current role in society, so that we grasp the critical importance of understanding the size at which events and actions take place across the nonlinear narrative continuum.

Contributors:
Swogger, John G. (freelance archaeological illustrator and cartoonist; jgswogger@gmail.com)
Donovan, Courtney (San Francisco State University; courtney@mapademic.com)
Squier, Susan (Penn State University; sxs62@psu.edu)
McMullin, Juliet (University of California, Riverside; juliet.mcmullin@ucr.edu)

8I "Thermodynamics of Geologic Time" *MU227 Pinal*　　　**Chair: Jennifer Kitson**

Thermal Sensations – Burning the Flesh of the World
McHugh, Kevin (Arizona State University; kmchugh@asu.edu)
Kitson, Jennifer (Rowan University; kitson@rowan.edu)

Heat is an escapable force on Planet Earth. We think and imagine bodies, human and nonhuman, constituted, contorted, and deformed through thermal effects. Heat is the transfer of energy via physical processes of radiation, conduction and convection, and also felt intensity, vibratory currents that enervate, and sometimes overwhelm, bodies. We ignite thermal sensations drawing on infrared thermography aided by a FLIR Systems i5 infrared camera. The thought experiment radiates around thinking thermal sensations as an elemental, more-than-human problematic which we divine as a summons or imperative. Merleau-Ponty and Deleuze are primacy interlocutors in a sci-phi experiment that unfolds across two thermal imaginaries as movements in thought (1) stranger things, and (2) desert of the real. Our thermal experiment-experience takes place in the infernal city of Phoenix, and the Arizona-Sonora borderlands where more than 2,700 bodies of undocumented migrants have been recovered, and an unknown number remaining in the Despoblado. Thermal sensations carry us from the plenum of the flesh to chaotic, inhuman intensities and forces of the earth. Bodies and corpses bear traces of injury and injustice, invisible affective intensities of 'heat' and 'hate', swirling thermal currents, with all-too-real effects in the inferno of Arizona. We perform a thermal violence of sensation, burning the flesh, in seeking to render visible the catastrophe of the present, desert of the real, agitating counter-actualizations in feeling-thinking otherwise, pushing toward just elemental geographies and a geophilosophy worthy of the earth itself.

The Poetics of Ice and its Intimations: *Ice-Time* **– Ice in the Anthropocene**
Waite, Clea T. (University of Southern California; clea.waite@usc.edu)

Glacial ice presents a four-dimensional hyper-view into time and space, an icy tesseract giving us an 800,000 years view backwards into the deep time of Earth's climatological past and forwards towards the pending outcomes of current rising temperatures. The "Ice-Time" project is a creative response to the perilous state of Earth's ecosystem. "Ice-Time" is an immersive, multi-projection video and audio mediascape fusing art and science that minutely examines the structure of ice to reveal the time embedded within. The project conveys the essence of ice and its intimations, eliciting the poetics contained within frozen water as revealed by current climate research. Audiences enter an immersive cinema space in which elements change and harmonize, creating a dynamic, recombinant composition that evolves as visitors advance through. The audience is embedded in a glacier's existence, allowing them to experience it at different scales in space and time. By means of a vivid, material presence of image, sound, data, and time, the cinema-installation presents a proprioceptive interaction of form and content, creating an embodied, participatory experience of accelerating glacial time that imbues the spectator with a deep awareness of the environmental and culture implications of ice.

Getting Out of Now: Atemporality, Petrotemporality, and the Construction of Universe and Earth History
Wood, Barry (University of Houston; bwood@uh.edu)

Until the rise of science, the past consisted of once-upon-a-time myth and legend. Two 20th-Century discoveries make possible a reconstruction of Universe and Earth history. Einstein's relativity established that time stops at the speed of light: the instant of light's departure from distant stars and galaxies is preserved, communicating the past to the observer. The physicist-philosopher J. T. Fraser called this Atemporality—the time of mass-less particles (photons) traveling at the speed of light. By focusing telescopes at different distances, we see the Universe at different past times, allowing us to construct a 13.8-billion-year cosmic narrative. This presenter has introduced an additional term, Petrotemporality (KronoScope 15, 2015), the time preserved in the precisely-timed half-life decay of radioactive isotopes in Earth's rocks and minerals. We can now measure the age of Archaic Era igneous and metamorphic rocks from the earliest continental cratons, uplifted sedimentary rocks from coastlines and mountains, fossils embedded in volcanic debris, chondrites in meteor fragments, and zircons that have survived numerous geological and tectonic processes. These varieties of petrotemporality make possible the construction of a precise narrative of Earth history, including the age of the Earth (and the Solar System) at 4.5 billion years. The discovery of atemporality and radiometric measurement of petrotemporality have given rise in the past 60 years to a precise narrative of what is variously called Cosmic Evolution (Eric Chaisson), the Universe Story (Brian Swimme), The Evolutionary Epic (Edward O. Wilson), Big History (David Christian), or the New Story (Thomas Berry).

8J "Alternative Approaches to Time and Space in Futurist Photodynamism, the 1936 Manifeste Dimensioniste, and the Journal transition" *MU226 Graham*
          Chair: Linda Dalrymple Henderson

This is the second panel in the stream "In and Out of Time in Science, Occultism, Art, and Literature." This panel brings together three scholars engaged with modern art (and literature) around the theme of temporal and spatial relations as affected by spiritual/mystical pursuits, science and popular ideas such as "the fourth dimension," and Romanticism.

The Unrealistic Reality of the Bragaglia Brothers
Mather, David Mather (Stony Brook University; mather2121@gmail.com)

The artistic collaborators and siblings Anton Giulio and Arturo Bragaglia used the photographic medium to explore the effects of expressive forces traversing human bodies. After having both trained in Rome to be filmmakers, they launched a photographic project in 1911, termed *photodynamism*, which was a vitalistic alternative to French physiologist E.-J. Marey's chronophotography. The technology would attempt to express, rather than to reduce, the uncontainable or excessive forces of the figures. Following a brief affiliation with Italian futurism, they were expelled due to the perceived threat posed by their ideas and practices to the other futurists. Afterward, they continued to make images of moving bodies for a few years in the context of spirit photography, though the underlying premises of the adjacent projects (i.e., futurist and post-futurist) were surprisingly similar. By responding to the evidence compiled by scientific positivists that suggested humans could be entirely explained by knowable physical properties, thus rendering them soulless, the Bragaglias pioneered a visual and gestural mode of figuration that combined aspects of early cinema, spirit photography, and futurist depictions of kinetic motion—in order "to record reality unrealistically," as Anton Giulio paradoxically stated it. Their visual language of bodily motion introduced a mode of temporal succession that distorted the clear, anatomical boundaries of bodies, suggesting not only spatial transposition but also a kind of spiritual transport—mapping between one set of human qualities and another.

The Multivalent Fourth Dimension, Space-Time, and Cosmic Space in the *Manifeste Dimensioniste* of 1936
Henderson, Linda Dalrymple (University of Texas at Austin; dnehl@austin.utexas.edu)

One of the twenty-six signers of the 1936 *Manifeste Dimensioniste* in Paris was the second-generation Futurist Enrico Prampolini. The group came together around the project of Hungarian poet Charles Sirato for the "dimensional inflation" of literature and art. Thus, literature would spread to the plane and painting to three-dimensional space, while sculpture was to abandon "closed, immobile" forms to reflect Minkowski's four-dimensional space-time and perhaps even "vaporise." Sirato (b. 1905), was young enough to embrace the new paradigm of Relativity Theory as it was popularized as of 1919, as was his countryman Moholy-Nagy, a pioneer of kinetic sculpture. Prampolini, born in the mid-1890s like Moholy, also responded to the new space-time, but in the end he was closer in spirit to the generation of original Futurists as well as Kandinsky, whose theater work he admired. Kandinsky (b. 1866) had no interest in Relativity Theory, but in 1936 he found in the multivalent "fourth dimension" a symbol of the utopian visions of the prewar era and, particularly, the possibility that synaesthetic color experiences could transform a viewer. Thus, both Kandinsky and Prampolini could subscribe to Sirato's discussion of "Syno-Sense theater," "gaseous materials," and "cosmic space." Marcel Duchamp (b. 1887), whose spiraling *Rotoreliefs* Sirato celebrated as kinetic art, was also not interested in space-time, but rather in generating space. In the *Manifeste Dimensioniste* he found a confirmation of the spatial fourth dimension that had been central to his art for twenty years.

Night Time in Eugene Jolas's *transition*
Cushing, Douglas (University of Texas at Austin; douglas.c.cushing@gmail.com)

In June 1929, Eugene Jolas printed his manifesto "Proclamation" in *transition*, the little magazine he founded. The document demanded the revitalization of language, hinting at Jolas's overarching project to re-orient poetry (and art) towards mysticism, and later, a cosmic, four-dimensional consciousness. The tenth point of "Proclamation" provokes, "Time is a tyranny to be abolished." Literary scholar Dougald McMillan attributed the curious line to Jolas's interest in Freudian ego psychology, Henri Bergson's concept of >*la duréeFinnegan's Wake* (serialized in *transition*). We might add the theories of André Breton, who, interviewed by Jolas in 1925, declared, "Surrealism has discovered that time does not exist." For Jolas, however, an older philosophy undergirded all of these thinkers and much of the avant-garde: Romanticism. "From its very in conception in 1927," Jolas reflected, "I conceived of the review *transition* as a Neo-Romantic organ . . . I tried to gather into it the leading Pan-Romantic writers—Surrealist, Dadaist, Expressionist—who were striving to expand human consciousness." Many of Jolas's thoughts about time demonstrably originated in Romanticism—Novalis's writing especially. In his *Hymns to the Night*, which Jolas knew intimately, Novalis opined, "Light's time was measured out to it; but Night's reign is timeless and spaceless." This paper considers the role that Romantic thought played in Jolas's call for the abolition of light's rational, apportioned time and his simultaneous quest through art for its inverse in the mystical time of the chthonic night—collective, primordial, and pre-logical.

8K "De/Naturalizing Temporalities: Native Science and Indigenous Futurism" *MU224 Gila*
Chair: Patrick B. Sharp

This panel explores the function of time in Native science and Indigenous futurism, as well as the contested function of "progress" in scholarly accounts of science and the artistic traditions of Indigenous futurism. The panel will begin with an overview of Indigenous futurism by moderator Grace Dillon. In the first paper, Patrick Sharp will examine the ways in which Eurocentric accounts of scientific discovery created a chronotope of progress that erased the origins of knowledge in Indigenous cultures. Sharp provides a critique of the ways in which science fiction incorporated this chronotope, and sketches out a reading of Native science and the waves of Indigenous futurism that have decentered the Eurocentric colonial understanding of progress. Stina Attebery will then discuss the ways in which Indigenous writers, artists, and scientific thinkers have rejected the image that they are extinct or incapable of contributing to techno-scientific futures. Attebery contributes a reading of Gerold Vizenor's concept of survivance that provides a necessary corrective for the Eurocentric assumptions of salvagepunk, and that reformulates it in a way that includes non-human beings as important actors in postapocalyptic ecologies. Lucian Gomoll concludes the panel with a new account of the Woodland Art Movement and the struggle of its artists with tribal elders. Gomoll provides a critique of the histories of the movement that repeat the Eurocentric narrative of progress from primitive to advanced/civilized, and advocates for using non-linear concepts of temporality to reframe the movement as a complex negotiation between generations and cultures.

What is the Science in Science Fiction?
Sharp, Patrick B. (California State University, Los Angeles; psharp@calstatela.edu)

Drawing from Eduardo Kohn's How Forest Think, I question the degree to which what we think of as Euro-American science has itself always been both multicultural and transspecies endeavor.

In the 1990s, Sandra Harding synthesized a generation of postcolonial work on science to show how Euro-American science suffers from a kind of amnesia in regard to its development. Through colonial processes, Euro-American science systematically mined the knowledge systems of Indigenous cultures and incorporated this knowledge as "discoveries" while simultaneously degrading the systems that produced them. In the process, they created a chronotope of progress that emanates from a masculine European center and is disseminated to countless feminized colonial sites. Science fiction incorporated this chronotope as a central feature of the genre. However, Indigenous cultures have long been evoked in science fiction to counter and critique this Eurocentric model of time and the gendered logic of colonial appropriation. Using the science writing of L(ucile) Taylor Hansen in the Amazing Stories magazines of the 1940s, I show how this critique has emphasized the limitations of scientific masculinity, but has too often been limited by flawed understandings of Indigenous peoples as inherently primitive and trapped in the past. I then analyze the chronotopes of Native science in recent work by Gregory Cajete and Kim Tallbear and its importance for understanding the growing traditions of Indigenous futurism and the changing images of science in Euro-American ecological writing.

Tricksterpunk Ecologies: Salvage and Refuse in Gerald Vizenor's Landfill Meditations
Attebery, Stina (University of California, Riverside; satte001@ucr.edu)

As people too often preemptively declared "extinct" or absent from the future, Indigenous writers, artists, and scientific thinkers have a vested interest in imagining alternatives to bleak ecological futures. Indigenous speculative fiction rethinks and repurposes categories of life, death, animacy, and inanimacy in postapocalyptic futures through what I'm calling "refuse/refusal." Indigenous post-apocalyptic stories focus on the waste products or refuse of capital, positioning cyborgs, robots, animals, and AI at the margins of the global economy and repurposing these technologies as an act of refusal for the workings of biocapital. I define refuse/refusal through Gerald Vizenor's short story collection Landfill Meditations: Crossblood Stories, which imagines a politics of material refuse through communities of Indigenous peoples, mongrels, virtual art, genetic data, stones, bones, and robots. My definition negotiates between survivance and salvage. Survivance, Gerald Vizenor's term for survival + resistance, works well for talking about human communities in the Capitalocene, but doesn't entirely account for nonhuman beings in a larger posthuman ecology. Salvage or salvagepunk Marxism outlines a pessimistic futurity based in salvaging the future from capitalist ruins. While useful for discussing the kind of speculative materialist waste I am looking at, "salvage" as a term brings with it the history of "salvage ethnography" and "salvage anthropology," which sought to "salvage" supposedly extinct or near-extinct Indigenous languages and cultures. Vizenor's work develops refuse/refusal in ways that transform the pessimistic futurity of salvagepunk into a more overtly trickster postapocalyptic aesthetic.

Painting Progressive Returns: On the Framing and Timing of Woodland Art
Gomoll, Lucian (California State University, Los Angeles; lgomoll@calstatela.edu)

The Woodland Art Movement emerged in the 1960s when northern Native American artists began using acrylic paint to convey indigenous beliefs about animals, traditions, and relationships. The movement is commonly called a renaissance, an artistic return to traditional

stories and iconography in the face of cultural destruction. In official history, Norval Morrisseau – "The Picasso of the North" – is the pioneer of a new style with his disciples variably extending that style into the future. Woodland Art is celebrated by contemporary scholars and ordinary people, Native and non-Native alike, which tends to render facile its laudatory progressive historicization. However, the artists have faced considerable critique from tribal elders concerned with how some beliefs had not been previously visualized, a potentially threatening component of the style. The artists have insisted that new forms of communication enliven traditions and resist their disappearance. In progressivist histories, elders become a primitive backdrop that artists overcome to emerge as an avant-garde movement with a father and a linear future. I argue that such conventions problematically paint Woodland artists in the image of Europeans, thus limiting how we understand their contributions. This paper revisits the history of Woodland Art by deconstructing colonial progressivism and taking to heart the concerns of both elders and artists. I turn to non-linear models of temporality – such as the futurism of Leanne Betasamosake Simpson and the cycles of the Ojibwe medicine wheel – to consider how we might alternatively understand Woodland Art paintings as critical negotiations between generations, cultures, and temporalities.

8L "Sacrifice, Reconciliation, and Preservation: Models and States of Exception" *MU225*
Yuma   Chair: Scott Cameron

The Invisible Sacrificed: Visualizing the Slow Violence of Environmental and Bodily Destruction
Penabella, Miguel (University of California, Santa Barbara; penabella@umail.ucsb.edu)

Violence in its many forms undergirds much of the foundation of political thought and governance, and its critical frameworks demand closer inspection at the intersections of temporality, capitalism, biopolitics, and environmental destruction. For the purposes of this project, I turn to Rob Nixon's 2011 book *Slow Violence and the Environmentalism of the Poor*, rethinking its central arguments through the lens of the sacrificial violence theorized in the works of Giorgio Agamben and the destructive capacities and rhythms of global capitalism examined by Henri Lefebvre. If violence is typically conceived as explosive, spectacular, and sensational, then the slow violence of global climate change and urban pollution represents forms of violence that resist assimilation to the immediate "real" and against publicly comprehensible language and visuality. To rethink slow violence in terms of the sacrificial disposability of human bodies, I examine the political discourse and media representation surrounding Smokey Mountain, a slum in the Philippines built adjacent to and atop a landfill. I argue that its residents represent bodies specifically marked to be killed and defined by their capacity to be killed. This is not lawful violence, but a deferral of responsibility from the sovereign body to an abstracted slow violence of attrition over long decades of time. The purpose of this project is to use a case example to investigate slow temporalities out of sync with that of the fast-paced demands of capitalism, managerial power, and global profiteering.

Temporal Reconciliation and Non-Anthropocentric Time in Ian McEwan's *Solar* and Climate Modeling
Carralero, Pamela (Purdue University; pcarrale@purdue.edu)

This presentation explores temporally influenced representations of climate change in relation to two sites of knowledge production: poststructuralist thought in British author Ian McEwan's *Solar* (2010) and climate modeling in atmospheric science. Climate change literacy and its ability to implement sustainability strategies depend on humanity's capacity to acknowledge the nonhuman lifespans that influence climate. Through a close reading of *Solar* and an analysis of climate modeling methods, this presentation argues that acknowledging non-anthropocentric time is crucial to fostering climate change literacy and, consequently, inspiring mitigative action towards environmental crises. Oftentimes, anthropocentric notions of time, which are characterized by concepts such as causation, measurement, and endpoints, limit climate change literacy and sustainability efforts. Responding to this issue, McEwan's *Solar* challenges its readers to refute the idea that sustainable technologies can be 'climate change endpoints' that fix environmental crises while allowing humanity to continue unsustainable environmental relations. The novel additionally demonstrates the need for humanity to develop a conceptual apparatus that will produce strong and innovative sustainability strategies. Climate modeling offers a working example of such an apparatus and how it can be connected to non-anthropocentric time. As visual representations of the lifespans of organic and non-organic beings that influence atmospheric composition, climate models can help formulate an awareness of how human and nonhuman timescales interact and thus trigger a temporal reconciliation with the planet.

The Art/Science of Preservation: Competing Models of Saving the Natural World in Jewett's "The White Heron" and Welty's "A Still Moment"
Cameron, Scott (Brigham Young University-Idaho; camerons@byui.edu)

In "The White Heron," Sarah Orne Jewett selects an unlikely savior for the natural world. Young Sylvy stands up against the demands technological encroachment to save a white heron from a young naturalist who is assembling a collection of stuffed birds. Jewett's story refuses modernity, looking back to a rural vision of America rather than accepting industrial development. However, in an interesting twist Jewett's regressive rural vision makes a progressive claim about preserving nature, at a time when the fledgling practice of preserving nature was just starting. The complexities of understanding the right way to preserve the natural world crop up clearly in the tension between Sylvy and the young naturalist/hunter, who seems to stand in as a representation of John James Audubon. Nearly fifty-five years after "The White Heron," Eudora Welty published "A Still Moment," which has uncanny similarities to Jewett's story. Welty writes of a young naturalist/hunter who is out enjoying the woods when he is stopped in awe at the beauty of a white heron. However, Welty's story seems to consciously rewrite Jewett's. In Welty's story, Audubon's delight in the bird ends with shooting the heron. In comparing the two stories, one can't help but recognize that the art/science of preservation is riddled with paradox. In this paper, I will explore various modes of preservation at work in the two stories as well as the methods proposed by ecologists at the time both stories were written to understand the best practices and implications of preserving nature.

8M "Experiments in Electronic Interaction" *MU248 Rincon*   **Chair: Natasha Lushetich**

Contra-temporality, Gimmicki-fication and Fetish
Lushetich, Natasha (LaSalle College of the Arts, Singapore; natasha.lushetich@lasalle.edu.sg)

In the digital age, time is fragmented not because it is accelerated, but, rather, time appears accelerated because things and objects have become disposable. For Byung-Chul Han, mythical time [anchored in the figure of god] was immobile, like an image. Historical time [anchored in the human being] had the form of a line running towards a goal. When the narrative of the line's teleological tension disappeared [when the anchor moved from the human being to the machine], the line decomposed into points, which now vacillate without a goal (Han 2016). For the experiential subject, life is no longer divided into beginnings, endings, thresholds, and passages. Rather, one is in a hurry to get from one discontinuous present to another, which produces contra-temporality or off-beat-ness, a form of bafflement, temporal displacement and somatic awkwardness. Focusing on the phenomenology of the gimmick, ubiquitously embedded in gadgets, software, adverts, mash-ups, tunes, gestures, and interactional modalities – emoticons, vibrating phones, and pre-recorded human-computer interaction – this paper hones in on two key aspects of gimmick-ification: its semiocapitalist ludic matrix, and its capacity to act as an existential refrain. By inscribing the gimmick in the (neo) avant-gardist tradition of impulsive action (Craven); citation (from Duchamp to Emin); repetition as difference (from Cage to di Scipio); and 'just-likings' (Flynt and Fluxus), it articulates the gaps and ceasuras in and of the contemporary mnemotechnical processes that wed automatism to psychosomatic reactions, arguing for a pharmakon-like status of the gimmick: the gimmick is both a de-accelerating and an informational deluge-filtering mechanism and a temporal fetish.

"The Hancock PolyRhythmengine": *Sextant***, Musical Time, and the Convergence of Jazz and Electronics**
Wimble, Jeff (Purdue University; jwimble@purdue.edu)

Released in 1973, Herbie Hancock's *Sextant* album, with its innovative amalgamation of jazz, West African, and funk musical idioms, demonstrates how free jazz and contemporary electronic musics—often thought of as distinct, unrelated realms—share similar methodologies and conceptual frameworks expressing notions of temporality rooted in an African-American improvisatory aesthetic. Though the use of electronic instruments in jazz at this time was nothing new, I argue that *Sextant* marked new conceptions of musical time, and new ways that electronic instruments and production could be incorporated in a freely improvised African-American musical setting. The unprecedented use of electronic sequencers in jazz to provide continuous melodic and rhythmic patterns or "loops" foreshadowed the later use of loops through digital sampling by hip-hop and electronic dance musicians. In this presentation, I use *Sextant* as a site in which to theorize the idea of "looping" as a musical practice that challenges linear, teleological notions of time, and explore how the album addresses dissonances as well as consonances between various binary oppositions crucial to an understanding of contemporary African American music: "high"/"low" culture, the uses of technology by marginalized/privileged groups, the role of individual/collective voices, the tension between "art"/"commercial" musics, artistic tradition/innovation, and the machine/human binary.

Panic! at the University of Illinois: Lejaren Hiller's Illiac Suite (1956) and its Legacy in Time, Labor, and Art
Funk, Tiffany (University of Illinois at Chicago; tiffany.a.funk@gmail.com)

In the evening of August 9th, 1956 on the University of Illinois campus, Lejaren Hiller and research associate Leonard Isaacson debuted the Illiac Suite, a composition for string quartet. As the first score composed with the first institutionally-owned supercomputer—the ILLIAC, the Suite's namesake—audiences reacted with outrage at the idea of a "creative" computer. Press releases exacerbated the panic, calling the Suite a work by "AN ELECTRONIC BRAIN," only "SPONSORED" by its programmers. Despite the furor, Hiller continued experimentation with the ILLIAC series, producing works such as Computer Cantata (1963) and a John Cage multimedia collaboration, HPSCHD (1968). As the university's reputation as a computer research center expanded, so did cultural anxiety toward technology. The rapid evolution of 'real time' information systems, coupled with the escalation of both the space race and Cold War, erupted in anti-Illiac protests and a rash of arsons on the University of Illinois campus. These explosive reactions juxtaposed against Hiller's works and extensive writings connecting information studies, aesthetics, and performance reveal an embattled artistic practice and deferred legacy. Despite his relative anonymity in art historical paradigms, Hiller's concerns regarding the relationship between time, labor, and art uncover a conceptual and performative emphasis anticipating current "glitch," or "dirty new media" performances, wherein artists exploit the flawed inner-workings of computer software and hardware. A re-examination of Hiller's Illiac Suite demonstrates startlingly contemporary concerns regarding our deeply interdependent but frequently tortured relationship with digital technologies.

Workshop Session 8: "Imaginative Ecologies: A Workshop in Speculative Fiction and Ecopoetics Continued" *Matthews Center, MC222, Fishbowl*
Kenney, Martha (San Francisco State University; mkenney@sfsu.edu)

In the face of an ongoing environmental crisis, how can speculative fiction, poetry, imaginative ethnography, and other kinds of creative writing help us respond to ecological damage and collectively build more livable worlds? How can experimenting with genre and form re-orient our research and connect us more strongly with our "matters of care" (Puig de la Bellacasa 2010)? For this workshop, we invite feminist, queer, antiracist, and decolonial scholars, writers, scientists, and artists working on the politics of environment to explore the potential of writing fiction and poetry together as a creative response to climate change, extinction, extreme energy, nuclear radiation, air pollution, and other urgent environmental concerns. With a focus on process not product, we intend to foster a space of support and community for SLSA members interested in trying out experimental forms of writing. Interested participants should submit a short piece of fiction, poetry, or other creative work (less than 900 words) to Martha Kenney (mkenney@sfsu.edu) three weeks before the SLSA conference. The manuscripts will be circulated among the participants prior to the workshop. Individual and collaborative pieces are welcome. If you've never done creative writing before, do not worry! We are looking for messy and promising provocations, not polished manuscripts. The purpose of the workshop is to generate different kinds of stories capable of engendering multiple ways of attending, responding, and relating within our more-than-human world. Max 25 participants.

Workshop Session 8: "Awareness Through Movement" with Grisha Coleman *The Gallery of Design (1ˢᵗ floor of Design South, one building north of the art exhibition in the Harry Wood Gallery*

What we are suggesting is a change in the nature of reflection from an abstract, disembodied activity to an embodied (mindful), open ended reflection. By embodied, we mean reflection in which body and mind have been brought together. [...] When reflection is done in that way, it can cut the chain of habitual though patterns and preconceptions, such that it can be an open-ended reflection, open to possibilities other than those contained in one's current representations of the life space. [...] In our usual training and practice as Western scientists and philosophers, we obviously proceed differently. We ask, "What is mind?" "What is body?" and proceed to reflect theoretically and to investigate scientifically. This procedure gives rise to a gamut of claims, experiments and results on various facets of cognitive abilities. But in the course of these investigations, we often forget just who is asking this question and how it is being asked. By not including ourselves in this reflection, we pursue only a partial reflection, and our question becomes disembodied; it attempts to express, in the words of philosopher Thomas Nagel, a "view from nowhere". It is ironic that it is just this attempt to have a disembodied view from nowhere that leads to having a view from a very specific, theoretically confined, preconceptually entrapped somewhere.

F. Varela, E Thompson, E Rosch The Embodied Mind, p.27

I believe that the unity of mind and body is an objective reality. They are not just parts somehow related to each other, but an inseparable whole while functioning. A brain without a body could not think; at least, the continuity of mental functions is assured by corresponding motor functions [...] We have no sensation of the inner workings of the central nervous system. We can feel their manifestations only as far as the eye, the vocal apparatus, the facial mobilization and the rest of the body provoke our awareness. This is the state of consciousness!

Moshe Feldenkrais, Mind and Body

This workshop is an opportunity to investigate the nature of reflection through a highly structured, guided somatic experience known as Awareness Through Movement. This process addresses the how of embodied cognition-reflection through a practice of non-verbal, small movements, done with minimal effort, while paying attention to one's own sensations and experience. The Feldenkrais Method® is an approach to human movement, learning and change originally developed by Dr. Moshe Feldenkrais based on principles of physics, neurology and physiology, and the conditions under which the nervous system learns best. The method explores the biological and cultural aspects of movement and learning; in this approach, fundamental or synergistic neuromuscular relationships enable an understanding of the somatic aspects of consciousness. In pairing this process with text any text, we will then spend time discussing the experience, its impact on the text, and the implications for such work in the future.

Business Lunch 12:30 – 1:45 MU241 Ventana

Saturday, November 11, 2017, Session 9: 2:00 PM – 3:30 PM

9A "Winds, Scents, and Tentacular Time" *MU236 Mohave*   Chair: Kevin McHugh

The Moving Mover: Wind As an Animating Force in Media and Theory
Reynolds, Daniel (Emory University; daniel.reynolds@emory.edu)

Filmmaker Robert Bresson wrote of his desire to "translate the invisible wind by the water it sculpts in passing." For Bresson, the "invisible wind" seems to be a spiritual force that puts matter into motion, a force of which one can provide an oblique account via cinema's ability to record and represent motion. At the same time, Bresson's theory of film seems to imbue film itself with qualities he associates both with water (it is "sculpted," photochemically, by the light with which it comes into contact) and with wind (film, a fleeting thing, exerts a causal power on the material realities that it "passes" in exhibition). Moving-image media have long been preoccupied with wind. Like wind, media seem to move of their own accord, but they obscure that which makes them move. They move things, and they themselves move, but they do not seem to make themselves move. Wind appears throughout the history of film and videogames as a force that points to a causal elsewhere. It becomes a figure for associative thinking in Antonioni's "Blow-Up." It visualizes mythic fury in Pasolini's "Notes On an African Orestes." In the video games "Flower" and "The Wind Waker," it is how the player's desires manifest in the game world. In each case, wind reveals invisibility as that which makes visualization possible. This paper traces this history in media, illustrating media theory's perennial investment in accounting for the coconstitutive motion of media, user, and world.

Olfactory Attunements, Technologies, and Traps
Kitson, Jennifer (Rowan University; kitson@rowan.edu)
McHugh, Kevin (Arizona State University; kmchugh@asu.edu)

We venture from home on the thread of a scent, sniffing and feeling out way. Moving in malodorous urban airs, we encounter new technologies and techniques for curating scented bodies and micro air spaces, fueled by the secretive American Fragrance and Flavor (F&F) industry. The F&F industry is creating and promoting 'natural' and 'pleasurable' scents and atmospheres that impress and inhabit bodies, creating an affective economy that summons, seduces, and habituates moods and memories. Three examples of new technologies in transmitting and exercising personalized micro scents are presented: Airespa®, Cyrano's o-phone, and Aroma Gym™. Our collective, cultivated love affair with scented bodies, things, products, and spaces – born from the vapors and volatiles of capitalism – is leading to olfactory traps: unanticipated pernicious environmental outcomes. We relay the disturbing story of Western perfumery and the musk molecule taking hold of our noses, lives, emotions, and memories, endangering Asiatic musk deer, leading to the proliferation and widespread use of synthetic musk in consumer products today, which persist in bodies and environs, carrying poorly understood toxicological effects.

Standing with Saguaros: Intimate Theater and Intimate Environmentalism
Eisele, Kimi (kimieisele@gmail.com)

In this presentation/workshop, multidisciplinary artist Kimi Eisele shares lessons and approaches from Standing with Saguaros, a yearlong site-responsive performance project in three acts in honor of the National Park Service's Centennial. Ideally, the workshop will incorporate an experiential "participatory performance" (field trip) to stand with a saguaro. But if that's not

possible, participants will share saguaro stories and hear about how the project used small-scale theater to create intimate environmentalism and stewardship. Presentation and conversation will reveal how durational performance/experience invites deeper understandings of individual species and entire ecosytems; how innovative storytelling can reveal keystone species as "portals" of community stories; and how site-responsive devised performances create new definitions of theater, new forms of public engagement, and new understandings about the relationships between people, plants, and animals. Workshop activities include: writing, sharing stories, scene-building, conversation, outdoor experience (if possible). Directed by Eisele, Standing with Saguaros was a collaboration between Borderlands Theater and Saguaro National Park.

9B "The "Political" After Biopolitics: Philosophical Genealogies" Papers from the Society for the Study of Biopolitical Futures *MU228 Cochise*   Chair: Cary Wolfe

A Short History of Self-Interest: From Phronesis to Self-interest
Vardoulakis, Dimitris (Western Sydney University, Australia;
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This paper will trace the transformation of phronesis in Aristotle and Epicurus to the idea that the basis of rational calculation is self-preservation in Hobbes and Spinoza and then to the concept of self-interest in Adam Smith and Kenneth Arrow. I will aim to show the key moves that account for the transformation of this concept, as well as how our understanding of the political is also transformed in this movement toward the biopolitical and neoliberal conception of the person.

Bare Subjectivity and the Biopolitical Will
Campbell, Timothy (Cornell University; tcc9@cornell.edu)

In *The Philosophy of Right*, Hegel attempts to pry apart what he calls bare subjectivity ("bloße Subjectivität") from the will. To do so he posits an object with which subjectivity struggles; it doesn't matter what kind object it is so long as in the moment of understanding the will becomes the owner of the perceived object. To do so, Hegel says, the will must adopt a standpoint over the object such that the will understands what is lacking for mere, bare subjectivity. This may explain why the will on Hegel's read is ultimately to be understood not in terms of its content but its form; the form with which the will takes leave of bare subjectivity. In this paper I will try to translate this peculiar moment of subjectivity and will in terms of a Foucauldian biopolitics. Rather than hearing only echoes of bare subjectivity in Agamben's bare life, I ask if it's possible for bare subjectivity to be understood not as a form of life primarily but rather as essentially a moment of awareness of the subjectivity's own lack which doesn't require or inevitably lead to a dialectical outpouring into the will, into biopower. An avowedly Lacanian reading, my paper is an attempt to recuperate part of a Hegelian dialectic for an understanding of bare subjectivity as the form of life that lacks and knows this lack.

Time Before Biopolitics in Derrida's *Advances*
Lynes, Phil (University of California at Irvine; philglynes@gmail.com)

Originally published as a foreword to Serge Margel's *Le Tombeau du Dieu Artisan* [The Tomb of the Artisan God] (Paris, Minuit, 1995), Derrida's *Avances* (1995) builds on the former's radical rereading of Plato's *Timaeus*. As Derrida explains, the sensible world created by the Demiurge would be vowed to an irreversible dissolution, having as its condition a time of pure expenditure or consummation, anterior to any transcendental, phenomenological or ontological concept of time. The Demiurge himself would constitute a finite, inoperative god, powerless in his inability to indefinitely maintain the sensible world in the image of the intelligible ideas. But 'we' – a 'we' irreducible to any human intersubjectivity, would thereby be charged with inheriting the world as a promise, a promise to make it so that the world live-on. A question, as Derrida recognizes, of the utmost urgency in our current ecological and political crises, where the possibility of giving ourselves death and the end of the world is more real than ever. *Advances* thus expands Derrida's reflections on the *Timaeus* in "Khōra" while engaging the equally essential matters of the gift, the promise, messianicity, temporalization and living-on discussed throughout his work.

9C "Feminism and Biological Data" *MU240 Navajo*   **Chair: Anne Pollock**

Feminist new materialists have persuasively argued for the value of deep engagement with biological data, but that move can sometimes take biological data for granted. In this panel, we explore ways in which feminism can inform the very creation and rendering of biological data. Panelists draw on wide-ranging disciplinary perspectives to explore diverse (im)material experiences of biological data including speculative visualizations of heartrate, representations of the maternal body, and interpretations of plant sex.

Heart Time: Reflections on Physiology and Embodiment
JafariNaimi, Nassim; and Pollock, Anne (Georgia Tech; nassim@gatech.edu)

In this paper, we present ongoing work that draws together scholars from science and technology studies, physiology, and design to seek speculative ways in which heartrate and other physiological data might facilitate new explorations of embodiment by researchers and the general public. For example, one of the installations uses the data of heartrate as an inverse metronome so that visualizations slow down as heart rate speeds up, to evoke the way that time seems to slow down during periods of stress. Another piece takes heartrate, galvanic skin response, and breathing as input to produce flower-like visualizations that illustrate physiological responses to emotional stimuli such as a short video. Finally, in a third installation we explore the impact of the environment on our bodies by capturing in real time how heartrate become sympathetic to the rhythm of music. Together, these explorations showcase feminist approaches to visualizing physiological data, ones that depart from commonly used scientific graphs to be more experiential and reflective.

The Mother as Biological Data in Art and Science
Aristarkhova, Irina (University of Michigan; airina@umich.edu)

This presentation contributes to a renewed interest in the maternal body in contemporary life sciences and art. Specifically, I focus on a variety and diversity of reasons, intentions and motivations for representing and translating "the mother" as biological data. I take two examples

from each field to compare their intentions and motivations, from queer mothering and feminist interventions into what is considered 'data' and 'biological,' to the expanding field of what (who?) is considered 'the mother' in data collection, interpretation, and representation.

Sex Untold: (Un)Reading Sexed Bodies
Subramaniam, Banu (University of Massachusetts - Amherst; banu@wost.umass.edu)

This presentation explores the language of "sex" in plant reproductive biology. Starting with stories of plant reproduction and romance, the presentation explores the underlying data that shapes such narratives of plant sex. In particular, it explores the categories of sex, gender, and sexuality that are produced as variables. On what basis and what assumptions ground assigned sex, gender, and sexuality variables? The presentation explores how biological data ground very particular stories and story telling practices about plant sexuality and reproduction. Drawing on key examples, the presentation aims to (un)read sexuality anatomy and bodies to imagine new possibilities of plant functioning and relationalities.

9D "Roundtable: Taxidermic Forms and Fiction" *MU242A Lapaz West*
        Moderators: Sarah Bezan and Susan McHugh

What are the temporalities, histories, and post-mortem animal embodiments of taxidermic forms and fictions? In her seminal essay, "Teddy Bear Patriarchy," Donna Haraway proclaims that the taxidermic form operates as a "servant of the real," while feminist scholars Sara Ahmed and Jackie Stacey illuminate how skin produces its own dermographics (inhabiting the spaces of landscape and the discourses of nationhood) and temporalities (aging, preservation, decay). Skin, Pauline Wakeham further suggests, produces signs in the reconstruction of Aboriginality through the colonial conquest of living forms, and Chantal Nadeau explores how fur is intimately tied to the inscription of sexual desire onto the female form. The Afterlives of Animals: A Museum Menagerie edited by Samuel J.M.M. Alberti similarly negotiates the museological imperative to capture and archive animal flesh, and the studies of Rachel Polinquin (The Breathless Zoo) as well as Bryndís Snaebjörnsdottír and Mark Wilson (nanoq: flat out and bluesome: A Cultural Life of Polar Bears) explore how affect circulates around taxidermic forms. Investigating cultural, literary, cinematic, poetic, artistic and historical engagements with practices of taxidermy, this panel will invite a discussion of the histories and futures of animal flesh, the performativity of the taxidermic animal, and its exposures, preservations, fetishizations, proximal encounters, inter-embodiments, and temporalities. In our exploration of taxidermic forms and fictions, we will develop methods, frameworks, and paradigms that enable us to contextualize taxidermic practice in the wake of the anthropocene, an era of unparalleled species loss.

Contributors:
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9E "Perceptions and Ecstasies of Time in Music" *MU242B Lapaz East*

Creative writer/media/arts talk by Garth Paine
Paine, Garth (Arizona State University; garth.paine@asu.edu)

Music is typically described as a temporal art form. Contemporary songs have verses, choruses, and bridges, symphonies have expositions with first and second subjects, developments and recapitulations. Yet when we attend a concert, we retain a compacted gestalt that somehow encapsulates everything as a singular sensation. In this experience there is no time vector. Only when recounting the concert does time become active. Time exists in the performative unfolding of the musical language and it exists in the recounting of a musical experience, but the music itself is timeless. The same observation may apply to listening to the sounds of nature. Does time exist as a process of the listening experience, or if listening via a sound recording, as a product of the recording or playback, or is time an inherent property of the sonic environment itself. As a composer, I have contemplated this apparent contradiction in the light of interactive systems. Early Western theatre and dance events were structured linearly around the King being winched from on high, sitting on the sun, the embodiment of God. But in the twenty-first century, interactive performance works use computers that perform 20 trillion floating point operations a second. What does it mean for time as a vector of interactive performance if the processing rate makes time imperceivable? John Cage commented that in Variations III and IV, he completely abandoned time. Open scores and aleatoric approaches do the same.

Sun Ra's Ecstatic Time
Stover, Chris (Arizona State University; cdstover@asu.edu)

What does Sun Ra mean when he suggests that we are working on the other side of time? Sun Ra's metaphysics begins with a double folding of time and space and a radical problematization of the concept of history. First, he projects backward: into mythical time and subaltern and forgotten pasts, to ancient African societies, creatively reimagining their philosophical and scientific narratives alongside the proliferating exegetical work contemporaneous with his own theorizing and teaching. At the same time he projects into utopian futures and interstellar trajectories, redeploying the exodus narrative intrinsic to African-American spiritual activism. To transcend the space of here and the time of now is to erupt within representational regimes of oppressive thought, discourse, and action. Music, for Sun Ra, is an aesthetic space-time within which that eruption takes place. But an activist now doesn't transcend time, it invents a new time, in each new now. If each present is an expression of its past—of its histories—then opening-onto-future, as a radical rereading of the past, is exactly what marks the end of history. "But history is his story. My story is mystery." What is on the other side of time? Mystery, possibility, difference. Like (Deleuze's) Nietzsche's eternal return of difference, we must turn to explore the ways in which difference lives in untold pasts, mythological pasts, virtual futures, all of which refract time back into the present. This is the ecstatic timeless present of all times, no-time, the only time, of the eternally recurring now.

When Time Stops: Exploring Timelessness in Music
Knowles, Kristina (Arizona State University; Kristina.Knowles@asu.edu)

Music's relationship to time has always held a special status, communicated throughout history in descriptions by music listeners and creators and through frequent references to music within philosophical discourse on the nature of time. Indeed, the unique experience of time created by music has led numerous scholars to coin the term "musical time" to differentiate between "ordinary" experiences of time and those that occur within (or are a represented by) a musical setting. Perhaps the most intriguing and problematic temporal claim raised in relation to music is its ability to evoke an experience of timelessness, a sense of "time out of time." In this paper, I explore the tension between music as an art form that exists only in and through the unfolding of time and the belief that music is capable of evoking "static temporality" through the dual lens of philosophy and psychology. In doing so, I seek to uncover the differing claims underlying these notions, parsing out ascriptions of timelessness in music that have cultural origins and are grounded in specific types of structures and those that relate to perceptual mechanisms which often result in a subjective experience interpreted as a moment of temporal stasis. By understanding the different origins of these assertions and the ways in which our interpretation of ongoing perception influences our conceptual notions of time, we can arrive at a more fine-tuned understanding of the experience of timelessness in music.

9F "Interplanetary Temporalities" *MU246 Coconino*   **Chair: Marie-Pier Boucher**

The history of space exploration is closely tied to the Cold War's military and economic imperatives. Space technology was developed by industrialized and affluent powers. Discourses were nationalistic and gave prestige to the countries that were able to develop a space program. Space programs reaffirmed gendered, racial, and colonial orders. For example, since its early ages the lack of diversity was evident in the US program. In the Mercury 13 program a group of women were trained to go to the Moon and never went after NASA discarded this mission. Instead a new program called Apollo was initiated and history shows that only 12 men walked on the Moon, purposefully leaving aside any chance of female participation. The socio-political configuration of today is different from the existing one 40 years ago; offering artists and political activists new opportunities by which to intervene in how we envision and inhabit the cosmos. Moving across and along a variety of space practices -from witchery to rockets, from space utopias to magic, from UfOs to shamanism, from levitation to interplanetary sciences, from space travel to hypnosis, this panel will focus on alternate discourses and practices that diversify our engagement with space exploration. In investigating alien space practices, across and along the arts and the sciences, we will look at imaginaries where power, resources, and capital are redistributed in order to challenge the conditions that legitimize knowledge production.

'Calling Occupants of Interplanatary Craft'
O'Reilly, Kira (University of the Arts Helsinki; kira_oreilly@hotmail.com)

This presentation will involve gestures, invocations and appreciations of female figures of witchy, interstellar craft. It will look at how these crucial but frequently marginalised figures inform thinking about knowledges and interfaces between artistic and other cultural practices, with science and technologies. What unruly lineages might be explored across their diverse and charismatic presences to offer unexpected perspectives and framings in regard to our cultural imaginings of interplanetary possibilities and embodiments? The discussion will focus on the

work of artist and occultist Marjorie Cameron, Ruth Norman of UNARIUS Academy of Science, and artist and space performance pioneer Empress Stah Power.

Alien Space
Boucher, Marie-Pier (MIT; boucher.mariep@gmail.com)

Outer space challenges older ideas of orientation, perception, territory, body, and distance that underpin national and global politics, and that are often encoded into our design of, and engagement with technology. In this paper, I look at how we envision the future of life under extreme, hostile, adverse and often undesired conditions to challenge the (often) assumed necessity of sacrificing particular lives, of supporting and maintaining social hierarchies and economies as they currently exist even when transplanted into new locations. I will examine sites where the future of human inhabitation under extreme conditions is currently being envisioned and constructed (Moon and Mars analogs and the European Space Agency Moon Village) to challenge their normative ways of sustaining or making resilient current social, sexual, and racial orders. I will look at how space inhabitation is approached by astronauts and scientists, but also by space practitioners (shamans, hypnotists, and urbanists) to contemplate how non-normative ideas of inhabitation are being conceived and acted upon in experimental, spiritual and urban space practices.

Drifting away from Earth
Mantra, Nahum (Independent artist and curator, KOSMICA; nahum.mantra@gmail.com)

In 1608 Johannes Kepler wrote the novel "The Dream" (Somnium). This work of fiction shows an imaginary trip to the Moon that was also considered the first treatise of lunar astronomy. In Kepler's time there were no rockets or any other means to go to space, but there was imagination, speculation and magical thinking. Artists and dreamers have had dreams of space missions that never existed. By crafting intergalactic travels they generated new fictions and narratives for our future in other places in the cosmos. This talk will engage with these narratives through the work of Johannes Kepler, Nikolai Federov, Jack Parsons, Dr. Atl among others.

9G "Game Studies 6: Risky Business" *MU238 Apache*   **Chair: Stephanie Boluk**

From purchasing a videogame to betting on livestreams to playing the stock market, building corporate brands, and even running a country, games operate as platform for risky business. Defined as much by their precarity as their playfulness, this panel investigates games of information, attention, money, and politics.

Liveness at Play: Twitch Streaming and the Production of Immediacy
Champlin, Alexander (UC Santa Barbara; champlin.alexander@gmail.com)

Videogame livestreaming is a form of user generated, participatory content that relies uniquely on elements of liveness and engagement to function. For the media apparatus to work, streamers and their viewers must be present at the time of the broadcast. In order to find success, it is incumbent upon content producers on platforms like Twitch, to attract a loyal audience that will tune in – or log in, as it were – and participate consistently in their streams. The extremely small

scale of these productions also means that content producers themselves are responsible for attracting and retaining an audience large enough to sustain their work. In a heavily saturated microcasting context, individual broadcasters must develop practices that allow them to recruit and retain viewers and these tactics often rely on managing user's experience of interactivity and immediacy.

In light of critiques of television's liveness as mythology, I explore the ways that the production of a videogame livestream engages and transcends the barely ideological nature of TV liveness. I argue that producers and users mediate their relationship through the platform and para-platforms in ways that leverage presence and access in emergent ways. The media commodity of a livestream, doesn't have a shelf-life. They are doubly dependent on immediacy - livestreamers need viewers to engage with, and viewers show up with the expectation of experiencing this kind of interactivity, all of which can only happen live. As a result, videogame livestreaming encourages new forms of networking, flow, and connected viewing that reframe the ways we might think about broadcast, play, and participation across networked media.

Wager. Wage. Wager: Money as Mechanic in the Gambling Economies of Twitch TV

Boluk, Stephanie (UC Davis; boluk@ucdavis.edu)

In Homo Ludens, Johann Huizinga briefly discusses the entwined etymological history of wage and wager. Noting their connected origin and historically divergent paths, he remarks "We do not play for wages, we work for them." In the attention economies of Twitch TV and other social media platforms and livestreaming services, the distinction between wage and wager has become much less clear. As Twitch has expanded from a platform for streaming and spectating videogames to a medium for broadcasting wide variety of ludic activities, the pleasure of play is transformed into form of work. Within a post-Fordist information economy the precarity and casualization of labor has returned the reliable wage back to a probalistic uncertainty of a risky wager and play into a bet. This talk will discuss livestreaming gamblers who not only play with money for profit, but who have essentially 'gamblified' their stream in order to produce a complex network of betting games. From thousands of dollars being bet in virtual blackjack with live video feedback of Panamanian dealers to online poker games streaming from private yachts in the Pacific to subscriber chat lotteries giving away Counter-Strike skins obtained through grey markets, I trace the flows of affective, informatic, and racialized labour of moneygames that do not evade surveillance technologies but flourish precisely as a result of the presence of ubiquitous real-time cameras and networked spectatorship. As players wager that their activity will result in a wage, money is not simply the outcome but the main game mechanic driving this massive multiplayer game.

No More Tigers, No More Woods: Playing Against Donald Trump's Green Worlds

LeMieux, Patrick (UC Davis; lemieux@ucdavis.edu)

On May 13, 2017, almost two hundred bodies lined the green at Ranchos Palos Verdes, their white khaki- and polo-clad limbs forming the word "RESIST!" A day before, at Ferry Point links in the Bronx, two men with chainsaws felled four trees before local law enforcement arrived. From red spray paint and bleach stains in Sterling, Virginia to dirt trenches spelling "NO MORE TIGERS NO MORE WOODS" outside Los Angeles to swastika-branded golf balls scattered across the grass in Scotland, the kinds of play occurring on and off Donald Trump's various golf

courses are not just fun and games. At the turn of what Eric Zimmerman calls the "Ludic Century" and under the executive orders of the Gamer In Chief, Trump's "Fabulous World of Golf" no longer supports the utopian fantasy of a green world that operates outside material, historical, environmental, or embodied basis. In the Anatomy of Criticism Northrop Fry articulates the concept of the "green world" through the magical forests of Midsummer's Night Dream in which Shakespeare's protagonists can flee the city to solve their problems through ecological play. And like Johan Huizinga's "magic circle," Bruno Latour's "black box," and Brian O'Doherty's "white cube," the green world articulates a pervasive ideology that has resulted in disastrous political, social, and environmental consequences even as it continues to structure the way we play. This short talk will follow Claudia Rankine's and Whitney Phillips' articulation of racial and gendered violence in and around games to consider how to play against Donald Trump's green worlds.

9H "Technology, History and the Transnational Novel" *MU229 Santa Cruz*
        Chair: Jap-Nanak Makkar

This panel convenes researchers who apply historicist methods when studying the impact of technology on contemporary literature. Panelists approach the post-1945 novel as a form shaped by the history of technology and technological discourses, and thereby illuminate some understudied aspects of the form. When referring specifically to content, speakers will strive of historicize the representation of digital surveillance, flexible labor, peripheral science or automated machines in relation to the post-1945 world system. And, speakers will also broaden the scope of discussion beyond content: the contemporary novel is a form conditioned by the employment of electronic technologies in the processes of literary production, as argued by Sarah Brouillette (2007). Therefore, by situating the form as a symptom of technology's ascendance, while also contending with the novel's own representational critiques of technology, speakers offer fresh, critical perspectives on the genre. This panel builds on suggestions made in recent monographs by Debjani Ganguly (This Thing Called the World [2016]), Rebecca Walkowitz (Born Translated: The Contemporary Novel in an Age of World Literature [2015]), and David Palumbo-Liu (The Deliverance of Others: Reading Literature in a Global Age [2012]). As these scholarly works indicate, we live in an era of increased connectivity, a condition permitted by new technologies. Panelists extend these critics' insights, adding that technological history and context help to explain not only an increase in connectivity, but also de-modernization and disconnectivity, an uptick in violence and warfare, and global inequality.

Reading the 'Local' and 'Global': Technoscientifc Networks in Postcolonial Bangla Science Fiction
Maity, Anwesha (University of Wisconsin–Madison; maity@wisc.edu)

In a world increasingly transformed by technoscientifc neocapitalism, science fiction (SF) is fast becoming an important mode to envision possible futures while interrogating the past and present. This essay focuses on how science and technology are represented in two SF series from postcolonial Bengal; Satyajit Ray's Professor Shonku series (1963-99) and Adrish Bardhan's Professor Nat Boltu Chakra series (late 1960's-2008). Both series are set in fictional worlds verisimilar to their contemporary "real world", and both protagonists are scientists. As such, their interactions within global and local technoscientifc networks are a central feature in these texts. I

map these interactions and analyze how the two series intervene within and offer alternatives to "center-periphery", "west-east" debates on the dissemination of scientific knowledge. For instance, Professor Shonku, who invents revolutionary gadgets at his personal laboratory at a peripheral location in Giridh (erstwhile Bihar), totally rejects institutional hierarchies and practices of "Big Science" while simultaneously nurturing collegial relationships with international scientific organizations and scientists. I conclude that science and technology are thus not only crucial to the narrative framing of SF texts, but also in representing "real world" hierarchies on both inter and intra-national levels and responding to them in imaginative ways.

Strange Slippage: New Media Sensibilities in Two Years Eight Months and Twenty-Eight Nights
Pappalardo, Mary (Louisiana State University; mpappa1@lsu.edu)

Amy Hungerford recently declared that it was not and is not clear that "literature changed, even if the world did, on or about 9 November 1989". Eight years later, Salman Rushdie's 2015 novel Two Years Eight Months and Twenty-Eight Nights depicts a near future in which the boundary between the human world and the world of the jinn is breached, leading to an epic war. The war is preempted by unexpected occurrences—an aging gardener begins to levitate slightly, for example—that earn the term 'strangenesses.' This slippage of the strangenesses' temporality can be read as a kind of metacommentary on the difficulty critics and writers face when trying to define the contemporary, particularly in light of new global media technologies that have accelerated change in a way almost unfathomable to the human imagination. This paper argues, however, the novel's diffuse plots and themes productively reflect that unfathomability. That feature has been criticized—a review in the New York Times calls the storytelling "manic" and the book itself "both overpopulated and underimagined"—but this paper shows how a reading practice attuned to the same new media influences that undergird the novel can provide us with a more critical understanding of its project. It is illustrative of a contemporary global literature that has changed and continues to change in the 21st century, most notably in response to new and developing media technologies. This paper demonstrates that this new, contemporary global literature demands a critical reading practice that accounts for and takes seriously those influences.

Politicizing Technology: An Approach to the Problem of Labor in Colson Whitehead
Jensen, Martin Aagaard (The Graduate Center, CUNY; mjensen@gradcenter.cuny.edu)

The post-1989 period is distinguished by an emergent alliance between technological innovation and politics, such that nations have become the agents of technological modernization while subordinating issues like economic inequality. Such an institutional disregard for economic inequality and the pursuit of modernization is, however, contested in literature, which aims to expose how technology itself functions as a propagator of inequality. If neoliberalism often seeks to depoliticize the question of technology, rendering it an autonomous realm to which we must submit, then cultural counter-narratives seek to politicize the uses of technology by focusing on it as an instrument of politics. In my research, I identify this representational dilemma as a struggle over the meaning of technological progress—that is, a struggle over the discourses that arrange the coordinates through which we conceive of progress in the age of globalization. In this paper, by taking up Colson Whitehead's The Intuitionist (1999) and John Henry Days

(2001), I explore how the progressivist view of technology is challenged by a literary narrator that speaks from a racialized position of oppression. In these novels, the promise of upward social mobility offered by technology reinforces already racialized divisions of labor. Thus, when technology's promise to transcend racial divisions fails, ideologies of scientific progress are instead revealed to be a product of the existing structures of inequality. As Whitehead describes how technology affects labor differentially along racialized lines, he thereby illuminates that it exploits social divisions while profiting from precarious populations.

Novel Arrangements in Electronic Modernity
Makkar, Jap-Nanak (University of Virginia; jkm5ar@virginia.edu)

In a paper called "Novel Arrangements in Electronic Modernity," I consider Ruth Ozeki's novel, A Tale for the Time Being (2013) in the context of what I call "electronic modernity," a period inaugurated by the successful application of electronic principles to computing in 1945. Drawing on histories by Paul E. Cerruzi, Janet Abbate, James Cortada and Philip Mirowski, and philosophical works by Jurgen Habermas and Bernard Stiegler, I provide an overview of two interrelated phenomena: (1) the alliance between private industry and state actors in promoting technological development since 1945, and (2) the recent acceptance of "automation" as a research priority for technological innovation. By reading Ozeki's novel in relation to the new arrangement between military and industry—which has arguably led to the "the decline of the sciences" —in the post-war period, I demonstrate how modernity's relationship to visual media permits techno-military initiatives to instrumentalize the image, while the realism of narrative retains a humanist, non-instrumental relationship to depicted reality. My paper offers a fresh assessment of the global novel, pointing to its salvific potential in an era when institutions strive to exploit representational media for warfare and technical instrumentalit

9I "Temporalities, Technologies, Health" *MU227 Pinal*   **Chair: Adam Geary**

Life Out of Time: Tactical Life and Pathological Unhealthiness as Political Resistance
Pokornowski, Steven (Rio Hondo College; spokornowski@riohondo.edu)

This paper outlines my conceptualization of "Tactical Life," a formulation inspired by Giorgio Agamben's "bare life" and informed by concepts from Giorgio Agamben, Michel Foucault, Lauren Berlant, Michel de Certau, and Gilles Deleuze and Félix Guattari. Building on Lauren Berlant's conception of "lateral agency," this paper explores how those who are systematically dispossessed, othered, and portrayed as pathologically abnormal or unhealthy engage in fraught, and brutally unglamorous, political resistance against mechanisms of biopolitical governance and control. Tactical life is lived outside of normative time and space – although, often not strictly by choice – and this temporo-spatial alterity also affords these dispossessed figures a parallax view of the systems and structures that govern life and health and, perhaps, a fraught means of resisting these structures. The paper will be divided into three sections: the first will theorize this "tactical life," the second will analyze how the moralization of health (a la Kirkland and Metzger's 2010 collection, Against Health) functions to mark the addict and self-medicator as other and as morally corrupt, and the final section will analyze how alcoholism – among other addictions – can be seen as an act of political resistance, an intentional embracing of unhealthiness as self-medication against the biomedical control of biopolitical systems. In this

essay, I will focus my exploration on medical conceptualizations of alcoholism and the alcoholic-as-political agent in the work of Jean Rhys.

The Time of AIDS
Geary, Adam (University of Arizona; ageary@email.arizona.edu)

In this paper, I attend to temporality as a marker of libidinal economy within early narratives about HIV. I suggest that two temporalities competed within early discourses: 1) the temporality of the object (HIV), which gets structured into the official narrative of AIDS; and 2) the temporality of blackness, or rather, the atemporal eternity of blackness, against which the appearance of HIV has served as a relief. While many scholars have analyzed and critiqued the figures of sexuality found within the discourses of AIDS, I will suggest that the story of HIV routinely parallels the Freudian psychoanalytic account of finding an object for the satisfaction of the sexual drive. Furthermore, I suggest that the trope of sexuality betrays an ongoing anxiety about the specter of blackness-as-generalized-chaos, a condition (both social and psychic) without a temporal narrative. I will pay particular attention to early efforts to distinguish AIDS in the U.S. from an undifferentiated, blackened, urban health crisis (e.g., "junky pneumonia").

Persistent Decay: Time and the City in David Robert Mitchell's It Follows
Pattison, Dale (Texas A&M University - Corpus Christi; dale.pattison@tamucc.edu)

In the 2014 indie horror film, It Follows, director David Robert Mitchell tells the story of a curse that is transmitted from one person to another through sexual intercourse. "It," a supernatural humanoid entity, follows the victim to his/her grisly death, unless, of course, the victim can pass the curse on to someone else. Despite this somewhat silly premise, Mitchell produces an escalating sense of dread throughout the film, as the protagonist, Jay (Maika Monroe), desperately moves through the suburbs and decaying inner city of Detroit, attempting to shake the curse. Mitchell's attention to the glaring disparities in urban spatial distribution—between Jay's relatively affluent suburban neighborhood and the blighted industrial inner city of Detroit—requires viewers, I argue, to examine the film as a critique of urban space in the postwar decades, when "parasitic urbanization," depleted industrial centers of their vital resources. In the film, "it" may be identified as the repressed violence perpetrated on the inner city, which has returned to haunt those who enjoy the comforts of suburban life but are willfully ignorant to the deleterious effects of suburban living. Significantly, the film anachronistically appears to take place simultaneously in the past, the present, and the future of Detroit. In unmooring viewers and characters from reliable temporal coordinates, the film locates urban decline not as problem of the past (as it is often understood), but as an enduring crisis, particularly for Rust Belt cities that continue to experience population decline well into the twenty-first century.

9J "Roundtable: Science Fiction as Protest (III)" *MU226 Graham*
       Moderators: Lisa Yaszek and Doug Davis

From its inception, a sizable production of science fiction has been predicated on a sense of socio-economic, political, and temporal urgency. SF has often been a vehicle for protest through challenging us to think what would happen "if this goes on." Early SF editor/publisher Hugo

Gernsback argued that SF was perhaps the only narrative form that could adequately prepare modern people for the rapidly-approaching technoscientific future, while postwar authors recall that SF was virtually the only vehicle of political dissent available to Cold War Americans. More recently, feminists, futurists, ecocritics, animal studies scholars, and others have used SF to rethink the necessary relations of science, technology, gender, race, class, and the natural world in both our own and possible futures. And just as SF writers and scholars recognize the genre's power to interrogate technoscientific developments and political structures, SF authors are frequently hired by governments and NGOs across the world when they feel it is time to think about science and society outside the box, and institutions such as ASU's own Center for Science and the Imagination explicitly commission SF narratives to address what they see as the most pressing issues of our day. These roundtables will consider SF as protest: how and why authors and readers turn to SF when they feel we are approaching a crisis either created or ignored by current institutions of power; and how SF authors and scientists alike use speculative tropes to make arguments for and against critical courses of technoscientific research and political action.

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9K "Running Away with Time" *MU224 Gila*   **Chair: Keith Robinson**

Time Bandits
Schaffzin, Gabi (UC San Diego; gschaffz@ucsd.edu)

If, as Michael Hardt and Antonio Negri argue, time and life are inseparable in late capital, how might one reclaim time as one's own? Time's establishment as locally-determined is closely tied to commerce and market logistics—to the point that breaking this tie may perhaps lead to such a reclamation. But how does one's perception of time affect one's ability (or willingness) to enact a protest against it? As an artist and active participant in the contemporary precarious labor market, I recently found myself engaged in the construction of an object envisioned for such a protest. The development of the device—a wrist-borne "digital sundial" which uses the wearer's longitudinal position to determine what the solar time is in her position—raises questions of the hegemony of time, the technological determinism strengthening this power, and whether there is even an opportunity for such a protest. Even after a number of iterations there seems to be little hope for my symbolic actions on a grander scale; much like any capitalist apparatus, time is an ever-present force whose hegemony is broken only through a near-simultaneous, wide-spread shift in cultural practice. The output of this project can be seen here: http://utopia-dystopia.com/#/ar-digital-sundial/

Will There Be Time Enough at Last to Learn to Live Finally?: Derrida in *The Twilight Zone*
Zwintscher, Aaron (Farmingdale State College; aaron.zwintscher@gmail.com)

It is an iconic scene that transcends its historic moment and its *Twilight Zone* context: Henry Bemis, surrounded by books he can no longer read, bemoans his now broken glasses and laments, "But there was time now!" to the empty, pitiless apocalyptic wasteland that surrounds. What does it mean to have time? To have enough time? To have time enough at last to live the life one wants to live or to learn to live that life (a life as an uninterrupted reader in Henry Bemis's case)? This paper explores these questions through a close reading of "Time Enough at Last" (both Lynn Venable's 1953 short story and its adaptation into the eighth episode of *The Twilight Zone*) as viewed through the lens of Jacques Derrida's concept of "learning to live finally" as well as his reading of time (and time being out of joint) from *Specters of Marx*. Yet Henry Bemis's case is not just one of overwork and capitalist alienation but rather a hope for nuclear annihilation. As fear of nuclear war once again looms, this paper asks what it means that the tagline of the original story suggests that an atomic bomb is "a thing to appreciate and enjoy" because catastrophe offers ample leisure time, and how we might instead learn to live finally towards a democracy to come that does not require imagining the end of the world to imagine the end of capitalism.

Out of the Present: Time in Whitehead, Bergson and Zeno
Robinson, Keith (University of Arkansas at Little Rock; karobinson3@ualr.edu)

In the early decades of the twentieth century both Whitehead and Bergson constructed a metaphysics that demonstrates how the human is constituted by a temporality that exceeds it, an irreducible exteriority always already at work dividing the present from within. To develop this metaphysics of time both philosophers take their cue from the pre-Socratic philosopher Zeno. Although both Whitehead and Bergson respond to Zeno in their mature works they take opposing paths. For Whitehead Zeno's paradoxes are formative for his own conception of time and process such that there can only be a "becoming of continuity". For Bergson, by contrast, Zeno's paradoxes are 'false problems' because essentially they rely upon a spatialized conception of time that covers over the "continuity of becoming". In this paper I will use Whitehead's and Bergson's contrasting approaches to Zeno to bring out their differing conceptions of time and process. Along the way I will compare Bergson's and Whitehead's methods and their critique of the Western philosophical tradition insofar as these are related to their conceptions of time and their shared effort at thinking outside of the present. I will conclude with some remarks on how their respective notions of becoming and continuity provide a counterpoint to the perpetual simultaneity or 'instantaneous ubiquity' of our globalized neoliberal present.

Long Ago and Far Away: Space-Time Travel in Tacitus' *Agricola* and *Dialogue on Oratory*
Janzen, Darrel (Brown University; darrel_janzen@brown.edu)

This paper demonstrates how the protagonists of two of the Roman historian Tacitus' earliest works undertake a distant journey to a wild, heterotopic, heterochronic landscape (Foucault) where they meet individuals who evoke primeval practitioners of their respective vocations, thereby helping create the sense that they have traveled back to a prehistoric time. In Tacitus' *Agricola*, the general Agricola explores and conquers the island of Britain, whose rugged and uncultivated terrain evokes Rome's own prehistoric landscape, while Tacitus' portrayal of its inhabitants as free and fearless calls to mind imperial Roman ideals of their earliest ancestors. In

the *Dialogue on Oratory*, the orator Aper declares that poetry's social irrelevance is such that its practitioners must retreat to the wilderness of the "woods and groves" to which the poet Maternus responds that this journey is actually a blessed *psychic* retreat to the Golden Age where/when poetry's prophetic forebears hold pride of place. This paper unites and builds on previous scholarship that has identified the motif of space-time travel separately in the *Agricola* and in the *Dialogue on Oratory*, and thereby also contributes to recent scholarship that identifies parallels between the two compositions. In so doing, it argues that the journey of each protagonist to a spatially and chronologically distant heterotopia allows Tacitus to compare the opportunities and constraints of pursuing generalship (Agricola) and eloquence (Maternus) as vocations under Rome's autocracy during the first century CE with the form that these vocations take in an idealized vision of Rome's prehistoric past.

9L "Found in Translation" *MU225 Yuma* **Chair: Jay Labinger**

Translation is relevant to SLSA interests in many ways, some more literal, others more metaphoric. Among the former are the role of translation in disseminating scientific and literary works and the tracing of formative influences through examination of translations; the latter include analogies between translation and scientific representation and explanation, as well as use of the term in areas as far-ranging as medical research (translational medicine), molecular biology (translation of RNA into protein), and computer science (translation of code into machine language). This panel explores several aspects of these interesting and productive connections. While diverse in subject matter, our presentations all reveal something "found in translation."

"The Good Anna": Literature and Science Translated
Giesenkirchen Sawyer, Michaela (Utah Valley University; GIESENMI@uvu.edu)

Translating Flaubert's "Un coeur simple" in 1905 led Gertrude Stein to write "The Good Anna," and thus to begin the project of *Three Lives*. She had just recently settled in France, and Flaubert's Félicité offered herself to be recast in the image of the faithful German immigrant servant Lena whom Stein had left behind in Baltimore. At the same time, this project in translational adaptation offered Stein the opportunity to rework some of her earlier manuscript materials. These first attempts at fictional writing had been intensely autobiographical, concerned with questions of psychological make-up as well as social identity, but also with a quest for a scientific approach to the truth of human personality: a scientifically accurate literary realism. In *Three Lives*, Stein continued her earlier endeavors to explore what Henry James had called the "social air" in its effect on individual psychology, as well as the dynamic interplay of psychological polarities within or between certain personalities as they are developing their genetic potentials. Stein's mature experimental modernism would not emerge until she turned away from such analytic representation of psychology and behavior toward the formal liberation of language that she is best known for, but this development was prepared for by Stein's exploration of voice as a way to capture personality. This exploration begins with "The Good Anna," as it translates, all at once, a French source text, the voice of a German-American immigrant, and Stein's own previous studies in literature and science.

Darwin's Influence on Mendel: Evidence from a New Translation of Mendel's Paper
Fairbanks, Daniel (Utah Valley University; Daniel.Fairbanks@uvu.edu)

Gregor Mendel completed the experiments for his classic paper, *Versuche über Pflanzen-Hybriden* (Experiments on Plant Hybrids), in 1863. He presented his results in meetings of the Natural Science Society in Brünn in February and March of 1865 and published the paper in 1866. Mendel owned a personal copy of a German translation of Darwin's *Origin of Species*, published in 1863, which contains his marginalia. Whereas Mendel's study of Darwin's book could not have had any influence *while* he was conducting his experiments, its publication date coincided with the period of time when he was preparing his paper, making it possible that Darwin's writings influenced Mendel's interpretations and theory. A comparison of Mendel's paper with the German translation of *Origin* reveals a substantially higher use of identical words and phrases in the final two sections of Mendel's paper, particularly in one key paragraph where Mendel reflects on evolutionary issues, thus providing strong evidence of Darwin's influence on Mendel. This discovery led my colleague Scott Abbott and me in turn to prepare a new and, we feel, improved, "Darwinized" English translation of Mendel's paper which employs Darwin's counterpart English terms as much as possible.

Traducciones and Translations: La Lucha con Holmberg
Alonso, Ana Lucia (Universidad Nacional de San Martín, Buenos Aires; betagalactosidasa@gmail.com)

This presentation is an open discussion of a translation in progress of Eduardo Ladislao Holmberg's novel, *Dos Partidos en Lucha*. The translation is being conducted over Skype and Google Docs between Sam Smiley and Ana Lucía Alonso. Alonso and Smiley have worked on (1) a previous translation by Holmberg, called "*Horacio Kalibang o los autómatas*", a story which was written in 1875 by Holmberg, and contains in its narrative a prescient "Turing Test" of automata, as well as on (2) other works of his. Their intentions are to release these translations for free in English to promote an understanding and appreciation of the contributions of Latin American science fiction to scientific knowledge and imaginings. Translations in progress can be found at http://sciamremix.blogspot.com. Works Cited: (1) Alonso, Ana Lucía, and Sam Smiley, trans. "*Horacio Kalibang or the Automata*, by Eduardo Ladislao Holmberg." *Ometeca* 18 (2013). (2) "Viaje maravilloso del señor Nic-Nac al planeta Marte [Chapters 1-4] by Eduardo Ladislao Holmberg." *Ometeca* 21(2015).

Polyvalent Machine Translation in the 1950s and Its Implications for Arguments about the "Unreasonable Effectiveness Of Data"
Plasek, Aaron (Columbia University; aaronplasek@gmail.com)

The task of translating a document from English to Spanish and converting a computer program written in Fortran to another program written in C++ are usually seen as very different kinds of activities. However, in the 1950s, a group of researchers interested in automating many of the tasks that made computer programming so tedious (from their perspective) saw the translation of natural languages and the translation of programming languages as the same kind of problem. Through an examination of conference proceedings, journal articles, and the physical computing devices of the 1950s and 1960s, this paper articulates the intellectual virtues and material

constraints that made it thinkable to conceptualize machine "translation" of human language and computer language as two forms of the same problem. While there has been some work on the history of machine translation (henceforth "MT") and artificial intelligence (henceforth "AI") in the 1950s, such work tends to examine these fields in isolation. Careful examination of the many forms "machine translation" took in the 1950s reveals the inadequacy of considering MT and AI as isolated fields—rather, this paper argues that the "trading zone" produced around problems defined as MT by 1950s actors had profound consequences for how problems in AI and machine learning were subsequently argued to be "practically" solvable, and how certain assumptions

surrounding the "effectiveness" of data articulated at this time have become naturalized in our present-day arguments involving the efficacy of machine learning in social, political, and economic contexts.

Workshop Session 9: "Tapping Eternity: Depth, Mark, Fossil" *Matthews Center 2nd Floor MC218* **Facilitators: Harrison Farina and Craig Dongoski**

The cupule is a shallow, cup-shaped depression caused by repeated percussive blows to a stone surface. They are the most common as well as the oldest form of rock art. We approach cupules as marks, behaviors, containers, props, fossils, artifacts, depths, and deepenings. The cupule suggests that being-in is always a *going-in*, an im-pacting that enacts a particular temporal relation with the Earth. The lived-time of making a cupule (composed of the repetition of immediate hits) and its persistence in the geological record (as a mark that will remain for hundreds of millennia) are indexed by the same depth. We intend to engage this by installing a site-specific stone for collective cupule-making practice. The performance/installation will afford participants the opportunity to not only speculate about nonhuman temporalities, but to actually *commune* with them through the embodied, meditative, and technical process of making cupules. The stone will serve as a kind of interface or register for the cupules; the stone itself could become a meaningful and lasting artifact of the conference proceedings.

Workshop Session 9: "Science & Fiction Workshop" with Matt Bell *The Virginia G. Piper Center for Creative Writing*

Matt Bell will run a creative writers' workshop on science and fiction writing.
Bell is author of *Scrapper*, *A Tree or a Person or a Wall*, In *the House Upon the Dirt Between the Lake and the Woods* and several other fiction books. He is also author of a non-fiction book on the classic video game Baldur's Gate II. His writing has appeared in Best American Msytery Stories, Tinn House, The New York Times, The American Reader among other publications.

Responsive Environments / Roundtable *Matthews Center 2nd Floor iStage, MC222*
Sha Xin Wei, Tom Lamarre, Todd Ingalls, Oana Khintirian, Stacey Moran

We invite you to come to iStage atelier to immerse yourself in a rich media environment, talk with Synthesis' researchers and artists, or just relax in our playful, poetic atmospheres. (Synthesis: synthesiscenter.net, Serra Montreal: vimeo.com/synthesiscenter/serra, Experiential Atmospheres: vimeo.com/synthesiscenter/clouds)

Saturday, November 11, 2017, Session 10: 4:00 PM – 5:30 PM

10A "Times Beyond Consciousness" *MU236 Mohave*   **Chair: Melanie Swan**

From Prognosis to *a posteriori* Diagnosis: Thoughts on the Times of Clinical Psychoanalysis
Chamberlin, Christopher (University of California, Irvine; cechambe@uci.edu)

Walter Benjamin suggested that film—in its precision, its capacity to slow motion, to interrupt and isolate discrete instants—provided the critical analyst an "unconscious optics" equivalent to the technique Sigmund Freud had developed to heed the parapraxes and psychopathology of everyday life. Both arrest and interrupt the frenzy of commodification; but unlike film, psychoanalysis is inextricable from a clinical practice. And unlike Western medicine, clinical analysis does not adhere to the progressive/prognosis temporality that a normative ideal of health establishes, nor does it treat patients interchangeably, as homogenized by the capitalist mode of production. Rather, it analyzes each unconscious in its singularity—borrowing from art its speculation, from science its empiricism, and from medicine its intervention. Supposing that neoliberalism rapidly contracts and accelerates the age of mechanical reproduction, what type of counter-temporalities does Freudian practice offer today? This talk scans contemporary practitioners' writings on clinical technique to isolate the quintessentially Freudian notion of retroactive causality. Of particular interest is the deployment of the *a posteriori* diagnosis, the diagnosis that *follows* the analysis and the administration of the cure, represented the case history as a genre of historical reconstruction. To explore what an attunement to retroactive causality yields for critical cultural analysis, I examine what black feminist theorist and historian Saidiya Hartman calls the "time of slavery" as both an *a posteriori* diagnosis of American culture—rendered *after* the termination of slavery— and a horizon of loss, or suspension of temporality, that bounds the heterogeneous times of the present.

Some Affordances of Deep Time
Engel, Stephen David (UC Santa Cruz; sdengel@ucsc.edu)

This paper considers some affordances of deep time for revolutionary consciousness. By "affordance" I mean what Caroline Levine means by it: "the potential uses or actions latent" in a thing, whether cotton, carbon, or literary form. By "deep time" I mean any timescale within the 13.7-billion-year history of the cosmos that has a dwarfing effect on human time and human institutions. By "revolutionary consciousness" I mean consciousness that says no to kyriarchy and its Capitalocene so vehemently that it seeks to disrupt or destroy routine patterns of production, consumption, imagination, and thought, with an impulse to collective uprising. Whereas Adorno says that the "only philosophy which can be responsibly practiced in face of despair is the attempt to contemplate all things as they would present themselves from the standpoint of redemption," I argue that one way theory can be strategically practiced in the face of rage is by contemplating the world, and specifically its oppressive institutions, from the standpoint of deep time. I argue that the key in mobilizing deep time for revolutionary consciousness is selectivity, is discernment in where we apply it, in which of its affordances we accept and when. I conclude that we can use the deep-time frame to further loosen the grip of the prevailing system's claim to permanence, while at the same time ignoring the affordance that would shrink the suffering of really existing beings (human and nonhuman) to nothing but the blink of an eye.

Philosophy of Time: The Composable Reality of Blockchains and Deep Learning
Swan, Melanie (New School University; mxswan@yahoo.com)

This talk argues that rather than being "out of time" in the different ways the term might suggest, instead we are more fully "in time" than we have ever been before, because we are making our reality increasingly time-composable. This is due to the marquis nonhuman temporality of computational technologies. Unlike human biophysical clocktime that ticks inexorably and uninterruptibly to its end, compute time is an infinitely malleable domain. First, I argue that with contemporary technologies such as blockchain, deep learning, and artificial intelligence, we are constructing domains where not only is time knowable, manipulable, and predictable, but even composable, precisely in the sense that we might be able to make more time. Second, I discuss the problem that time is a key underlying orchestration mechanism in both computing and biology, but the models and conceptualizations are quite different. To address one of most interesting challenges in computing, the creation of human-like intelligence, computing time regimes and biological time regimes will need to be integrated. Third, I summarize key moments in the history of the philosophy of time from Plato's first positing of time as the moment between being and becoming in the Timaeus (360 BCE). We continue to be captivated by trying to understand whether time is something real and fundamental in the underlying world, or merely part of our phenomenological experience. I conclude by revealing how scientific and philosophical arguments might come together to show that because time is contingent, reality is composable.

10B "Slow Time" *MU228 Cochise*　　　　　**Chair: Maria Whiteman**

Erratic Time and Attention
Crawford, Hugh (Georgia Institute for Technology; hugh.crawford@lmc.gatech.edu)

The Appalachian Trail crosses Pennsylvania on a relatively low ridge, one with little altitude gain or loss--in other words, a couple hundred miles of what should be big-distance days. But instead hikers refer to that part as the trail where boots go to die. Formed by receding glaciers from the last ice age, the Pennsylvania Appalachians are a pile of rocks--erratics left by melting ice--ranging in size from houses to bowling balls. With little or no soil to stabilize the surface or cushion footsteps, this range makes walking strange. Each step is on both a familiar and weirdly alien terrain, producing in the hiker a different form of attention. In deep time, all rocks are alien, the result of settling and upheaval, rolling and folding, or a long slow drift in ice, but in human time they are usually perceived as mute and immobile. Walking the Pennsylvania Appalachians, hikers instead find a different, less stable world--one that wobbles. Francesco Careri distinguishes roaming -- *errare* -- from nomadism. Nomads follow paths defined by transhumance movements, while erratic paths are made by paleolithic hunters chasing game, a distinction based not just on purpose but also on different forms of attention. Stones and walkers--erratics each--intrude on worlds, and, like the intrusion of Gaia detailed in Isabelle Stengers's *In Catastrophic Times*, require "due attention." According to Stengers, we have lost the right to ignore Gaia. Her hope is that in the imminently catastrophic times we all now live, we can become attentive to slower time. This paper will try to think with erratics--their intrusion into our current historical moment--in an effort to learn to pay attention.

Horse Time

Saturday, Session 10 4:00-5:30pm

Tom, Erica (Rutgers University-Newark)

Driving away from the farm, I always leaving an hour than I intended. I work at an equine nonprofit, where we offer experiential activities with our herd. Like clockwork, anyone who visits the horses is late to wherever they were headed to next. We all smile at whoever has been waiting for us, and shrug, "horse time." This perpetual tardiness is part of being with horses. Study of wild and domestic horses may provide insight into why the constraints of human time often disappear in the company of horses. Horses sleep two hours a day, and they spend the rest of their time grazing and grooming one another. Most horse training approaches draw on equine ethologists understanding of horses as prey animals. With the assumption that horses will react defensively to their environments, great time is spent in desensitizing horses to the human constructed spaces of the arena, the barn, and the cross-ties (where a horse is held in place between two walls). Aligning equine herds with the hierarchal organization of human society, most horse trainers work with horses to establish dominance. New research on equine cognition and sociality encourages humans to move beyond ecologies defined by hierarchy. Echoing these different conceptions of horses (seeing horses as cognitive rather than reactive), methods of working with, and being with horses have emerged with both meditative and playful practices— focusing on breathing, and simply being. Play, as part of being with horses, is a method and goal that requires a different sense of time. Horse Time is a rumination on the experience of horses. How they "spend their time," how they seem affected by time, and how it feels to relinquish ourselves to horse time. Through immersive video with a herd of eight horses, this presentation attempts to transcend anthropocentric time, exploring the sensorial and temporal experience of horses in the Valley of the Moon in Sonoma County, California.

Waiting Room
Necyk, Brad (bnecyk@ualberta.ca)

Doing-illness takes time. From the traumatic event of diagnosis and rupture of the continuum that defines one's whole self, through to the tests, scans, waiting rooms, radiation, chemotherapy, surgeries, reconstruction, physiotherapy, prosthetics, more waiting rooms, and, for some, the eventual return of cancer... there is no point past this possibility but only a field of illness states. These states are not neatly fitted in a binary of healthy or dead, but rather in a continual state of 'doing-illness': bodily discipline, support networks, constant engagement with health systems, and, for some, a new relation between themselves and illness—an integration, an acceptance. However, the way of being is dramatically unmoored. There were large lifestyle changes such as the inability to work and maintain relationships, but there were also more intimate changes such as in the way your body moves, and how one speaks, and eats. Throughout this state of 'doing illness', the traumatic event of diagnosis, treatment, and recovery remains and persists as a dizzying dislocation of the self in relation to one's own body. In this presentation, I will show visual work titled Waiting Room created from an interdisciplinary project at the University of Alberta working with head and neck cancer patients. Their experience of illness has no end, but instead is a field of being-ill, where they learn to do-illness each day, day after day, on and on...

10C "Poly-Rhythmia: The multi-tempic orders of ontological heterogeneity" *MU240*
Navajo   **Chair: Phillip Thurtle**

This panel offers the topic of poly-rhythmia as an analytic for thinking about how complex assemblages of elements, organisms, and planetary bodies help order each other. A polyrhythm is a rhythm that simultaneously uses two or more rhythms not thought to be derived from the same meter. Taken together, the papers in the panel present a poly-rhythmia of different meters traversing artistic, critical theoretical, political, and scientific practice.

Choreographing Time
Cummins, Rebecca J (University of Washington; rcummins@uw.edu)

This presentation will consider artworks that investigate diurnal rhythms and unique approaches to conceptualizing and / or visualizing time and cadences related to the earth's movement. These artworks refer to the specificity of place, notions of time, duration and natural phenomena by enlisting various instruments, both obsolete and current, to observe and record what can be sensed and visualized. Works by artists such as James Turrell, Charles Ross, Chris Engman, Spencer Finch, Sam Taylor-Wood and myself will be presented; each seeks to stimulate a greater awareness of our subjective and paradoxical relationship to nature and technology. Other, almost domestic, poetic, humorous or intimate ways of interacting with science and technology will be actively explored.

Think like a flower; Or, becoming plant-conscious to sustain life and love on earth
Mengist, Nathanael (Vice President, The Common Acre; mengin@uw.edu)

 Is it not by mere coincidence that the same political forces relaxing environmental protections in the U.S. are also poised to re-declare a War on Drugs. Nor is it by some accident that those most harmed by these types of neoliberal policies have historically been economically marginalized indigenous peoples, people of color, and immigrants. Fortunately, just beyond the human lies an intelligence that long predates the machinations of white supremacist control society: the plant. Though variations exist, the tale of how coffee was discovered in Ethiopia can be summed up like many other pharmacognostic legends: Coffea arabica seduces goat, goatherd witnesses encounter, Coffea arabica seduces goatherd [plant seduces animal, human witnesses encounter, plant seduces human]. By weaving these origin stories of plants and their clever animals together with threads of 'high' theory, I will outline some implications for how humans tune into the beat of the vegetable kingdom—in other words, for "becoming-rhizome." Though this paper would likely fit best in an emergent discourse that Jeffery T. Nealon heralds "critical plant studies," my interest is in cultivating a conversation with practical affect more than in charting out new intellectual territory. The hope is that the meditations presented here will serve others in the reclamation of their ancestral relationships with plants—especially those suffering under regimes of systemic and environmental racism. Whether manifest as the consumption of a stimulating beverage or a visionary herb, we must value these encounters as transmissions of plant consciousness.

Liquid time: Flies, forms, durations and the importance of moisture
Thurtle, Phillip (University of Washington; thurtle@uw.edu)

In a strange masterpiece of popular science, the 1954 article "Two or Three Bristles", the geneticist Curt Stern argues for the importance of "responsive genes". All parts of an animal

have similar genes, contends Stern, yet these parts can look and act very differently. There must be something then that turns genes on and off at different times in the body; they must be regulated. Stern also carefully regulated his feelings toward the fruit flies that he studied so that he could make his argument. In his article, he strategically vacillates between identifying with their biological processes, common amongst all animals, and a fascination with their sleek alien forms. How could identical processes create organisms as different as flies and humans? In answering this question, the geneticist turns to the elements before he turns to genetics. They key to the difference of how flies and humans inhabit the world is in their relationship to moisture. The small size of the flies means they need an exoskeleton to wall them off from the world to protect their moisture. The large size of humans, on the other hand, allowed them a responsiveness to the world expressed through moisture, as denoted by the sheen of liquid on one's lips or the tears in one's eyes. Stern's paper reminds 21st century scholars that not all geneticists were determinists and that something as insubstantial as liquid can link materials to forms in living things.

Looking Up to Schooling Fish
Gearhart, Dakota (Independent Artist; dakotaeriegearhart@gmail.com)

My presentation will expand on the qualities of schooling fish; their visual forms, decision making abilities, and grouping rhythms. Citing the Atlantic Herring, the Common Minnow, and the Comet Goldfish, I unpack the communal reasons fish school, but also how their genetics enable this quality. But even more so, I present schooling fish as a model for social transformation. Through a combination of factual research and anthropomorphic speculation, I ask: how are collective decision-making processes in decentralized system possible? And if fish do it, can we?

Rhythmic Becomings
Fox, Tyler (Human Centered Design & Engineering, UW; foxt@uw.edu)

In this talk, I will use the philosophy of Gilbert Simondon to explore how we might sense nonhuman rhythms, and discuss the implications of such sensorial experience. Simondon's philosophy provides a number of entry points into this topic. In his philosophy of individuation, we can find the idea that rhythm defines the limits between different domains of existence. According to Muriel Combes, it is "the heterogeneity of individuating rhythms" that allow us to distinguish between domains such as physical or living (Gilbert Simondon and the Philosophy of the Transindividual, 2013). Yet, such a distinguishing act is primarily an act of thought; it is not necessarily built on sensorial experience. Nonhuman rhythms, patterns, flows and tempos surround, yet elude, human senses. Yet here, Simondon provides a second entry point into the topic, through his concept of techno-aesthetics. He suggests that different technical objects can extend human sensorial experience into new realms; technology not only creates new rhythms of becoming, but it allows for aesthetic capture of different domains of existence. Finally, Simondon claims that art and aesthetic experience transgress "ontological limits' (On the Mode of Existence of Technical Objects, 2017). Building on these ideas, I will explore a range of techno-aesthetic art projects that bring forth different rhythmic becomings from nonhuman domains, and discuss how such a focus brings forth new experiences from which to consider individuation, technology, and nonhuman experience.

10D "Sounding Borders" *MU242A Lapaz West*   **Chair: Sabine Feisst**

*Tunneling Futures***: Speculative Art and Underground Public Space**
Llamas-Rodriguez, Juan (University of Texas at Dallas, Santa Barbara;
juan.llamasrodriguez@utdallas.edu)

Geologists argue that human bioturbation, or tunneling, may become our species' most lasting invention. By design, underground structures hold the potential to withstand centuries-long erosion that aboveground ones cannot. The appeal of an underground society that outlives contemporary social life has long been influential in both science fiction and public policy. Yet, this is not restricted to licit forms of underground development (e.g. subways, bunkers). This paper speculates instead on the potential for illicit tunnels, particularly border tunnels, to become infrastructures for future world-building. Illicit border tunnels are a "structure out of time" in two senses. First, they reside outside the current sociopolitical order by undermining aboveground norms. At the same time, they are primed to outlast the materiality of existing bordering mechanisms. Thus, illicit border tunnels provide an aperture to unthink current social and material organizations and to translate a future world order into the working present. To theorize these issues, this paper analyzes the mixed media art project by Edwin Agudelo *A Practice in Excavating and Envisioning Ambos Nogales*, which suggests thinking through three underground border systems — sewers, natural caves, and drug tunnels — as an assemblage that renders a "specific spatial dynamic capable of being programmed for public access." Through its materiality, the project blurs the distinctions between human or non-human, licit or illicit tunneling. In doing so, this model suggests a future public space emergent yet unmoored from contemporary geopolitical distinctions, thereby "opening up" the future as just below, rather than beyond the present.

Hearing Borderland Temporalities: Sound Patterns of U.S.-Mexico Border Fortification
Feisst, Sabine (Arizona State University; Sabine.Feisst@asu.edu)

A site of rich and diverse ecosystems and dramatic environmental change, the U.S.-Mexico borderland has been in the news due to concerns over security issues and debates over advancing border fortification. The backers of steel fences, concrete walls and surveillance have failed to consider the manifold temporal modes of this land's geographies, climates and human and non-human life cycles. My paper first traces the various inaudible and audible rhythms that inhabit the borderland, including natural and human-generated rhythms, rhythms produced by fencing and surveillance and the various interplays that produce ruptures. Next I offer three case studies to closely examine audible rhythms gathered and created along the border in response to environmental change and border fortification. The focus will be on Tohono O'odham elder Ofelia Rivas's songs protesting the partitioning of O'odham land; activist sound artist Glenn Weyant's use of border fences as giant musical instruments; and artist-acoustic ecologist Garth Paine's ambisonic field recordings for scientific study, acousmatic compositions and a series of time-capsule like virtual reality experiences. All three artists are residents of Arizona, have listened to and creatively reflected on the Sonoran Desert section of the U.S.-Mexico border for extended periods of time. Building on such ideas as Henri Lefebvre's "rhythmanalysis" and research by such scholars as Kun, Madrid, Rivera Servera/Young and personal interviews conducted with the above artists, I will illuminate their artistic practice, philosophies as well as their planned responses to Trumpian border politics.

The Neoliberal City as a Cryogenic Form: *Wayward Pines* and the Temporality of Immigration
Concannon, Kevin (Texas A&M-Corpus Christi; kevin.concannon@tamucc.edu)

Current scholarship on neoliberalism suggests its support of global trade occurs at the expense of closed national borders, a tension Monica Varsanyi describes as the nation maintaining "economic openness" through "political closure." To Varsanyi this tension leads to changing understandings of (non)citizenship status and of immigration regulation, allowing the federal government to support the global market by shifting responsibility for border control to individual cities and local police. The 2015 television mini-series Wayward Pines, based on a trilogy of novels by Blake Crouch, explores this rescaling of control by replacing the nation with the city as the defining frame. Taking place 2,000 years in the future, the mini-series depicts how much of humankind has been killed by virulent plagues, and the only human survivors are those who, having been chosen to participate in a cryogenic experiment, are later awakened to live in Wayward Pines. In this presentation, my interest is in how the awakening of individuals occurs piecemeal, where individuals are awakened when needed, and where individuals can also be returned to sleep to try to immigrate again if they do not (yet) "fit" into the city. My interest is in 1) focusing on how this understanding of immigration as a temporal rather than spatial experience supports neoliberal imagining of immigration within the global market by representing the city as both accessible and yet contained. And 2) how this rhetoric of fitness, produced through ever-present surveillance can be linked to the later destruction of Wayward Pines, underscoring how the show can ultimately be read as critical of the neoliberal desire to foreground the city as a site of policing immigration.

The New Zombies: Global Warming, Climate Refugees, and Junot Diaz's "Monstro"
Hovanec, Caroline (University of Tampa; cari.hovanec@gmail.com)

Last year, the Department of Housing and Urban Development offered $48 million to resettle the people of Isle de Jean Charles, an island in southern Louisiana that is rapidly losing land mass to erosion and sea level rise. The New York Times called the island's Native American residents "the first American 'climate refugees.'" They are surely not the last—the UN warns that by 2050, up to 200 million people worldwide will be forced from their homes by drought, flood, or heat. As a warming climate intersects with rising nationalist movements in Europe and North America, we can expect climate refugees to be one of the most urgent ethical issues of the century. This paper examines climate-induced migration through the lens of Junot Diaz's "Monstro," a science fiction tale set in a near-future Hispaniola. On one side of the border, Dominican teenagers while away the 105-degree summer days; on the other, Haitians in camps waste away from a mysterious new illness—until one day, they stop wasting away and start seeking flesh to eat. "Monstro" has been read as a 21st-century zombie story and a critique of late capitalism, but it is most prescient as a story about climate refugees. It exposes those whose carbon-intensive lifestyles contribute most to global warming, and yet who would police the borders. Dramatizing an uprising of climate change "viktims" against the people who would keep them out of sight, on the other side of a wall, "Monstro" is a Marxist fable for the Anthropocene.

10E "Pathologies of Time: Stability and its Discontents 1" *MU242B Lapaz East*
         Chair: April Durham

Timothy Barker's 2012 book, Time and the Digital, collated perspectives on time in Deleuze, Serres, and Whitehead to theorize a notion of time that is thick, dynamic, and multiple. In this way, he proposed that all aspects of art, scientific inquiry, and everyday life are involved in a complex becoming inside the operations of flexible, unpredictable movements of time. The idea of continual becoming has been circulating for some time now and informs work by Elizabeth Grosz, Karen Barad, Barbara Bolt, and others as they theorize the ability of subjects and objects to transform each other in a linear manner, through their situated relations. What this complex notion of time also carries is a groundlessness that is unstable, unreliable, and even pathological. While we might be excited about the possibilities of non-linear, a-logical time, we also are often compelled to meet it with the need to normalize it or make it recognizable and "healthy." This two-panel series seeks to develop a conversation around how pathologies of subjectivity, relational dynamics, and sociability (i.e., illness, dysfunction, disruption) can be considered in complex orders of time, such as digital or queer, beyond the need to resolve the pathology or to impose well-known structures of stability. The reaction to the horrors of disorder and chaos largely consists of balancing gestures intended to return the situation to stasis. We wonder what other responses to instability might be of interest as we consider the prospects for navigating the elastic complexities of a normative time.

Help, Help. Fire, Fire. Raqs Media Collective on the Axial Age, Middle Ages, and the era of "Post" Everything.
Durham, April (University of California, Irvine; legendejournal@gmail.com)

In her recent work on what she calls the "chthulucene" era, Donna Haraway offers readings on multiple currents of time that link human and nonhuman actors in practices that are complexly recombinant and that writhe with the energy they generate through their relational exchanges. The notion of active, contingent making of bodies and subjectivities through bizarre, unpredictable, and misfired exchanges operating in complex orders of time forces a reconsideration of embodiment that evolves as unstable, mash-up that only becomes recognizable as a stable, categorical, and self-identified unit when language is applied and time is reduced to linearity. The same processes describe subjectivity co-constituted among the living and the extinct where "trans-subjectivity" ebbs and flows. In their work "Fever, Fever," South Asian collaborative artists group Raqs Media Collective appropriates the narrative and drawings of the tale of "the burning of the house of lac" from the Mahabarata to rethink post-colonial narratives and circulations of capital. By recontextualizing the Axial age tale in that of the Anthropocene, this paper argues that Raqs challenges the notion that "time heals all wounds," and offers instead that excavations of the past, occupations of the present, and questions of the future are porous enough to one another that chaotic interruptions in narratives of embodiment and history. These not only unhinge static notions of subjectivity, but afford alternative currents that at the same time speak to a Foucauldian "care of the self" and to the impossibility of reconciling the Self to the shifting sands of time.

Looping Time and End Time in the Work of H.D. and Daniel Paul Schreber
Dustin, Lheisa (Zayed University; Lheisa.Dustin@zu.ac.ae)

My paper examines the apocalypticism and circular temporal vision of Daniel Paul Schreber, subject of Sigmund Freud's and Jacques Lacan's stage-setting case studies of psychosis, alongside the similar apocalyptic and circular temporal vision of a culturally sanctioned writer, modernist H.D. (Hilda Doolittle). I read their work through diverging lenses: Jacques Lacan and Melanie Klein's formulations of psychic pathology as proceeding from failed object relations, and eco-theorist Timothy Morton's theory of hyperobjects – objects like global warming that transcend the spatial-temporal boundaries of modernity. If mental health contributes by definition to sustainable and collective human survival, Morton's theory of hyperobjects reverses conventional notions that healthy object relationships involve the perception of strong and stable boundaries enclosing spaces and times, subjects and objects. H.D. and Schreber draw on doctrines of karma, reincarnation, and divine mystical union, as well as on personal experience, to render temporalities that push against modernity's segmentation of space, time, subject, and object. Time for them is looping, circular or spiraling instead of linear, departing from and returning to a single beginning and end, an "eternity" (as they describe it) that may offer the opportunity to resolve the whole of history. These visions of temporalities that loop back toward eternity may call us towards fuller, though perhaps "mad," experiences of time and subjectivity.

10F "Art Responding to the Ecological Other" *MU 246 Coconino*   **Chair: Mark Wilson**

Initial Encounters
Hanson, Erika Lynne (Arizona State University)

Timothy Morton writes in *Ecological Thought:* "What would a truly democratic encounter between truly equal beings look like, what would it be— can we even imagine it?"
I facilitate meetings between related objects. My current project *Initial Encounters*, sets up the potential for a homecoming of objects that have been removed from the landscape and circulated in the realm of human exchange economies. This talk will identify and break down some of the entanglements that are related to the main actors in the project, such as the United States National Park Service, rocks and minerals, and textiles and the weaver.

On the Oblique Imperative: an examination of the obfuscating nature of spectacle in art and conservation Wilson, Mark (University of Cumbria, Institute of the Arts, UK; mark.wilson@cumbria.ac.uk) Snæbjörnsdóttir, Bryndís (Iceland Academy of the Arts; bryndish@lhi.is)

As artists working serially with specialists in other fields, (botany, museology, zoology and many more) a key consideration in the preparation of artworks is in presenting an understanding of this complexity – that the multiplication of approaches by which it is possible to examine things demands ever more profound sensitisation to contexts, ecologies and an acceptance of what may always be beyond our understanding and control. In this paper the challenge is explored through the lens of a single event, which came to light during research for an art installation *Matrix* (2016) by Snæbjörnsdóttir/Wilson. Central to the project, is a study of architectural variance in polar bear dens and their proximity and relation to a nexus of human activity in the Arctic – comprising indigenous peoples, the oil industry, conservation agencies and tourism. We examine the principles embodied in the act of 'searching' – in this case, an oil industry surveillance flight over the coastal terrain of the northern Alaska using forward looking infrared technology (FLIR) to identify late autumn denning sites. The disturbance that this

particular search prompted is a trigger for conjecture in relation to interspecific protocols and the questionable primacy of 'sighting' in eco-tourism. The oblique view, suggesting what is beyond simple sight is a tactic of artists whose view is always greater and more complex than what it is s/he may present. We discuss how this mechanism of strategic withholding and disclosure is significant in relation to how humans must now consider the environmental jeopardy – of habitats and species. www.snaebjornsdottirwilson.com

Animal Behavior: Rhythmanalysis and More-Than-Human Habit-ation
House, Brian (Brown University; brian_house@brown.edu)

This paper discusses Animal Behavior, an artistic research project in development by the author and collaborators. The work centers on a tracking collar designed for NYC street rats that takes advantage of inexpensive biometric technologies recently developed for (human) consumer wearable devices. It employs machine learning to classify behavior: eating, sleeping, mating, fighting, and scouting. Each monitored rat is paired with a human NYC-dweller who wears a bracelet that vibrates according the rat's activity. This ambient sensibility of the rats' ethology subsequently pushes and pulls upon humans' own daily rhythms. Deleuze, Guattari, Haraway, and Lippit among many others have theorized about the animal representations and practices that burrow through the nature/culture divide. Our connection to rats is particularly poignant: living under the paving stones, consuming our refuse, and incubating our diseases, their mythos is that of the underside of a global, urban capitalism which sits alongside the scientific knowledge-making of their laboratory cousins. Animal Behavior approaches the ensemble of human-rat-technology via a reimagining of Henri Lefebvre's rhythmanalysis. First, it addresses the dressage of life forms through the biopolitical instrumentation of habit prevalent in current "wearable" trends. It asks, in a consumer culture where instead of a hug you use your Apple Watch to send your heartbeat to a friend, what is the interplay between intimacy and alienation in such meditation of the body? In addition, it postulates a "minor data science" in which observation of the other is intentionally intertwined with one's own rhythms. Thus this personal relationship with a co-habitating rat stands in for the larger renegotiation of our place in a not-just-human world.

10G "Rethinking Temporalities in Cinema and Digital Media" *MU238 Apache*
Chair: Shane Denson

Time-Criticality, Total Cinema, and Audio-Visual Synchronization
Cohen, Thomas (University of Tampa; tfcohen@ut.edu)

Many film and media scholars have shifted their attention from hermeneutic analysis to the archeology of objects that comprise a medium. Such materialist approaches afford a different perspective on technological changes such as the advent of audio-visual synchronization in the cinema. One favorite explanation for this transformation, expressed famously by Andre Bazin's phrase "total cinema," cites spectators' desire for a thoroughly convincing representation of the phenomenal world. However, an obsession with realism fails to account satisfactorily for synchronization. For instance, although synchronized speech promotes a realistic effect, film music and sound effects often do not. Humanist and idealist, Bazin allows machines no agency here, crediting instead an intense predisposition for mimesis that characterizes humanity. Contra

Bazin, my presentation questions human imagination as the driving force for technological change and instead examines synchronization as communication between technologies: the camera-projector, the phonograph, and the metronome. From Wolfgang Ernst I adopt certain critical terminology, particularly the concept of time-criticality, which describes the decisive punctuality (Kairos) of micro processes that yields an event in modern media. I extend this term to electro-technical (analog) as well as techno-mathematical (digital) technologies. Beyond human perception, these incremental processes nevertheless produce "temporal affects" in spectators. This explanatory model facilitates a reassessment of the audience's participation in this event: not as consumers demanding verisimilitude but as astonished witnesses of an encounter between sounds and moving images on screen.

BASIC Motion and the Animation of Digital Time
Johnston, Andrew (North Carolina State University; andrew_johnston@ncsu.edu)

This paper examines abstract digital animations from the 1960s and 1970s. Based on archival research of different proposed and constructed systems, I analyze the ways in which temporality was configured in the development of real-time digital graphics. While showing that the hybrid technics of digital animation from the time incorporated photographic as well as computational components, this paper focuses on the importance of a little known language, GRASS, an off-shoot of BASIC, that was instrumental in the creation of real-time digital animation in the 1970s at the Electronic Visualization Laboratory in Chicago, IL. Studying how programmers and engineers wrestled with the problem of time while developing this language, I reveal how they attempted to encode one form of cinematic temporality within this new technical framework. Through this history of perceptual technics, my paper will also press for a consideration of animation outside the confines of a film genre to focus on the ways in which it operates through forms of technical action framed in different epistemological moments. In this way, animation moves away from a category of aesthetic reference and towards a means through which we can understand the ways that various temporalities can be bound together within technical storage media. And the early history of digital animation becomes a passage through we can understand changes in the media landscape as well as a broader transformation in the mid-twentieth century of how technologies were modeling experiences of temporality.

Pre-Sponsive Gestures: Post-Cinema Out of Time
Denson, Shane (Stanford University; shane.denson@stanford.edu)

In this presentation, I argue that contemporary, digital moving-image media – what some critics have come to see as properly "post-cinematic" media – are involved centrally in the (pre-)mediation of an experience of the world without us – both thematically, e.g. in films about impending or actual extinction events, and formally, in terms of a general "discorrelation" of moving images from the norms of human embodiment that governed classical cinema. Such discorrelation is evidenced in violations of classical continuity principles, for example, but it is anchored more fundamentally in a disruption of phenomenological relations established by the analog camera. Digital cameras and algorithmic image-processing technologies confront us with images that are no longer calibrated to our embodied senses, and that therefore must partially elude or remain invisible to the human. Anticipating and intimating the eradication of human perception, post-cinema is therefore "after extinction" even before extinction takes place: it

envisions and transmits affective clues about a world without us, a world beyond "correlationism," that arises at the other end of the Anthropocene – or that we inhabit already. The presentation will explore particularly the ways that digital artworks and creative computational methods – including databending, digital glitch, and other methods that transform the temporality of moving images by taking them out of time (arresting their movement) or by plunging them into the ahuman durations of microtemporality – speak to the cultural, material, and phenomenological relations between post-cinematic moving-image media and current environmental transformations associated with the Anthropocene.

The Tesseracting of Cinema
Waite, Clea T. (University of Southern California; clea.waite@usc.edu)

The aesthetic orchestration of space-time began with the megalithic sky observatories of pre-history, immersive spaces that composed the progression of the stars into mnemonic narratives. In contemporary cinema, the manipulation of time and space through techniques such as time-lapse photography, slow motion, hyper magnification, and three-dimensional sound, are similarly used to represent scales of time and space that are far beyond the scope of human comprehension such as the glacial time of Earth's climate or the spatial expanse of the known universe. The fourth dimension – what Apollinaire described as "the immensity of space eternalizing itself in all directions", and it's best known mascot the tesseract, requires motion, in time, for us to visualize it within the confines of our three-dimensional space. Cinema is the medium of time. Immersive cinema is cinema in space. Motion, the body, and a peripatetic experience connected with hyperspace present an alternative notion of space-time in cinema – a four-dimensional cinema tesseract. Immersive films, multi-projection cinema installations, and virtual reality are instances of a supra-dimensional cinema in which the linear progression of cinematic time is shifted from the two-dimensional screen into an exploded, three-dimensional, faceted space of simultaneity, navigated by the audience. The narrative of tesseract cinema is transformed into a composition created by kinesthetic memory, a somatic montage, unique to each participant.

10H "Biopolitics and the American Novel in the Long Nineteenth Century" *MU229 Santa Cruz*   **Chair: Kelly Bezio**

Giorgio Agamben's *The Fire and The Tale* offers an intriguing hypothesis to Americanist scholars working at the intersection of literature and politics: that the way beyond sovereign power lies in stories' ability to imagine an alternative ethico-political perspective. Agamben theorizes that the vortex generated within a literary work's simultaneous potentiality (what could be written) and impotentiality (what could be written and is actively not written) creates a temporality in which "what is at stake…is happiness." In contrast, he sees those who engage in mere artistic activity "doom" themselves to be "transformed into a political movement." The dichotomy between happiness and politics unfolds through his reading of a largely European canon. How might other literary traditions fit within this thesis? Our panel approaches this question through analyses of American novels in the long nineteenth century. Each paper unpacks the biopolitical investments of diverse authors in terms of, respectively, questions of race, genetics, and liberal accumulation of property. Our interpretations show how these novels, on the one hand, address explicitly the politics in which they operate, and, on the other hand, attempts to see beyond those politics to some kind of happier, more ethical, imagined future. Our

analyses foreground, in contrast to Agamben's reading, that literature engaged in this kind of work also cannot avoid its entanglements in "cultural work." Which is to say that while producing literary artifacts as part of a political movement may seem antithetical to "happiness," our archive suggests the two are intimately intertwined.

Tracing the Biopolitical Roots of Charles Chesnutt's The Marrow of Tradition
Bezio, Kelly (Texas A&M University - Corpus Christi; kelly.bezio@tamucc.edu)

It can seem that Charles Chesnutt's novel The Marrow of Tradition (1902), which foregrounds the difficulties of black medical professionalism at the turn of the century, has only a tenuous connection to the centuries-old history of smallpox inoculation. Modern germ theories were rapidly achieving consensus in the 1900s in contrast to how little the first inoculators understood about disease transmission. Indeed, the "outbreak" with which the novel is concerned comes in the form of a race riot (not an epidemic). And yet, this paper argues that we can trace a genealogical connection from eighteenth-century inoculation practices to The Marrow of Tradition that reveals the novel's specific biopolitical paradigm. My analysis focuses on the novel's final chapter in which the black protagonist Dr. Miller is exhorted by his wife to save the life of a white child—the only child of the man who instigated that race riot that killed the Millers' son. I extend Susan Danielson's claim that the novel needs to be read in terms of this child's "medical rescue." By connecting this notion of "medical rescue" back to the enslaved African named Onesimus who first taught white settlers in the Massachusetts Bay Colony how to inoculate, I show that biopower's American origins emerged out of a reliance on black care. Applying Giorgio Agamben's theorization of the state of exception, I elaborate how the novel's black medical professionalism demonstrates that, paradoxically, becoming a physician ensures even less ability to protect one's family and community from thanatopolitics.

"Mixed Bloods and Half-Told Stories": Fictions of Transmission in the 19th-Century Novel
Waples, Emily (Hiram College; waplesej@hiram.edu)

In the title essay of his recent collection The Fire and the Tale, Giorgio Agamben reflects upon what he calls "a genetic link between pagan mysteries and the ancient novel." Agamben's "genetic link" (legame genetico) evokes the notion of common origin, broadly conceived, but it simultaneously conjures a more specific, bio-scientific association: one that suggests an intrinsic, genomic component to the structure and function of narrative. Indeed, while Agamben argues that "the element in which the mystery is dispersed and lost is history," both scientists and novelists have explored the ways in which memory and mystery may be dispersed in our anatomy: in blood, bodies, genes. This paper examines how nineteenth-century American authors from Nathaniel Hawthorne to Oliver Wendell Holmes to Frances Ellen Watkins Harper engaged ideas of embodied historicity—of the real and imagined connections between heredity and history, parentage and narrative—in their tales of predisposition and transmission. Specifically, it demonstrates how the imaginative medium of fiction served as a means to examine and critique of the pursuit of genetic and generic purity; as a character in physician-author Holmes's "physiological romance" Elsie Venner (1861) complains, "I don't like these mixed bloods and half-told stories." Approaching American literary history as an archive of "mixed bloods and half-told stories," this paper seeks to explore the intersection of mythic and genetic forms of transmission in the nineteenth-century novel.

Novel Biopolitics: Networked Property in Frank Norris's The Octopus
Murphy, Ben (University of North Carolina at Chapel Hill; bmurphy2@live.unc.edu)

This paper asks, how has the novel should be interpreted in light of biopower's work on the population. Nancy Armstrong takes up this question by arguing that the early American novel (circa 1800) evinced a network sensibility. This network novel trades nationalistic domesticity for global circulation, and it leaves the "biographical" bildung of the disciplinary novel for the "biological," or biopolitical, imperatives of what she calls the "problem of population." This "problem," Armstrong argues, makes moot a foundational issue of liberal sociality: property. The network novel trades landed ownership for landless nomadicity. Compelled by Armstrong's framework, this paper entertains Frank Norris's novel The Octopus (1901) as a problematic text case, of sorts. Norris is of course a far cry from early American novelists, and I don't claim that he recapitulates all or even most of the features that Armstrong aligns with the network novel. Nevertheless, The Octopus does dramatize the collapse of what for Armstrong are poles: network and property. If Armstrong views the "network" as a rhizomatic release from property—antithetical to a Lockean sense of ownership as identity—The Octopus makes property the animating concern of a network. More precisely, the novel's eponymous "octopus"—a railroad corporation—is a network intent on owning (other people's) property. If the biopolitical novel is invested in networks, The Octopus makes clear that property remains a part of the equation. Such a lesson might reveal the way in which biopower transforms rather than undermines modes of liberal accumulation.

10I "Performing Corporeal Becomings" *MU227 Pinal*   **Chair: Mickey Vallee**

Voicing the body-horizon
Vallee, Mickey (Athabasca University; mjvallee@gmail.com)

This presentation will voice the horizon of the body in the context of contemporary biomediations. To voice is to actualize a relation. The presentation will thus be solely interested in the making of relations actual, by voicing entanglements between human, non-human, and technological interfaces. By examining biosecurity and voice hacking, voice cloning, prisoner tracking, voice editing software, and new smartphone intimacies, this presentation will centralize this actualization of the relational instead of producing another worthwhile exegesis of non-ocularcentric sense and sensation. To render actual also involves sounding. Sounding is taken here as an action that happens through the sensations of experience in such a way that is more or less immersive. In this presentation, I propose to voice the auditory horizon of the body with the intention of renewing the body's belonging to the visible. The body's belonging to the visible can and should be renewed if we are attuned to the horizon of the body. This paper negotiates a space to articulate this horizon in order to revitalize the body's resonance between its visible and invisible configurations, as well as to locate new modalities of resistance to biosecurity and new forms of affective governmentality.

Between Absence and Presence: Pornography, Spectrality, and the Affective Body
Bergen, Hilary (Concordia University; hilary.bergen@gmail.com)
Huber, Sandra (Concordia University; sandra.j.huber@gmail.com)

Naomi Uman's Removed (1999) portrays the sexualized feminine form as a ghostly shimmering. In "removing" the woman from the screen (Uman painstakingly erased the female figure from a 70s European porn film frame by frame, using bleach and nail polish remover), she in turn highlights the actor's constant motion as performative. In contrast with the visibility of male sexuality in film media, female sexual pleasure cannot often be explicitly seen, and therefore relies upon an affective and ephemeral performance of the body through time. In Uman's work, the woman on the screen is not completely erased but rather translated into the imaginary. The spectrality of Uman's work extends beyond a critique of the scopophilic porn gaze. We see a link between Uman's work and portrayals of sexual fluid as captured in the 19th–century phenomenon of ectoplasm—a substance that emerged from the orifices of female mediums, and was said to be a materialization of the spirit world. This fluid (or media), which had the consistency of semen, is often brought into discussions around fraudulence—however, our interest in "truth" lies not in the presumed objective view of any camera, but in the embodied and experiential practice of the women whose bodies perform labour. Uman's disappeared woman and the mediums occupy an uneasy space between presence and absence—they communicate, as Brian Massumi writes, that "when gesture is deprived […] of its terminus, its pragmatic truth potential is suspended," making it "a purely speculative activity."

Flesh and Blood: Fledgling's Queer Biopolitics of Addiction
Diaz, Rosalind (UC Berkeley; rosalind.diaz@berkeley.edu)

Scholars and readers of Octavia Butler's novel Fledgling (2005) have remarked on the issue of free will in the novel. Fledgling's matriarchal vampires, the Ina, produce a powerful venom with an addictive chemical component that allows them to forge intimate ties with and among groups of human "symbionts." This venom initiates a biochemical transformation that changes the composition of the humans' blood. Symbionts become dependent on their Ina; if the Ina do not feed on their blood at intervals, reducing their blood cell count and supplying them with venom, the symbionts suffer withdrawal and eventually die. This framing of intimacy-as-addiction presents an apparent contradiction for many readers and, indeed, for some of the characters in the novel. I propose a rereading of the theme of addiction in Fledgling which neither brackets addiction as a condition compromising free will, nor abstracts addiction to the allegorical level. Rather, I foreground the biologization, racialization and criminalization of drug addiction in America since 1914, in order to elucidate the biopolitical meanings which crystalize at the site of the addicted body. I argue that engagement with these biopolitical meanings of addiction is central to Fledgling's queering of narratives of bodily autonomy and its turn towards interdependent embodiment. Fledgling's insistence on biochemical "addiction" as the foundation of its queer kinship networks exposes the limitations of a liberal doctrine of free will which presumes an autonomous, independent subject modeling self-possession via mens sana in corpore sano.

10J "Fluxus, Out of Step – Not in Time: Not Dancing to the Drummer?" *MU226 Graham*
Chair: James McManus

Introduction - "Fluxus and the De-Definition of Art"
James W. McManus (California State University, Chico; jmcmanus@csuchico.edu)

Viewed as out of step and not in time, Fluxus has long posed problems for artists, scholars and audiences alike. Its patterns of thought and manners of production have deftly defied categorizations akin to late modernism's progressive/linear narrative whose cadence was established by the staccato beat of Clement Greenberg's critical rhetoric, aimed, against the legacy of Dada and Surrealism. Grounded in his 1939 essay "Avant-Garde and Kitsch" and the 1940 follow up "Towards a Newer Laocöon," arguing for distinct boundaries between art and mass culture, Greenberg laid out his rigid reading of modernism's identity and goals over the next decades. He championed art's definition, the recovery of art's sense of self, a theme that he continued hammering in his 1961 essay "Modernist Painting" – what Caroline A. Jones identifies as the "bureaucratization of the senses" - or borders defended by walls - granting hegemony to eyesight alone.

In the early 1960s, the period of Fluxus' genesis, Greenberg still commanded the bully pulpit. However, not without competing voices arguing other agendas. One of them was Duchamp's long-standing plea against "purely retinal art," pledging instead that it be "at the service of the mind." A louder opposing voice came from Harold Rosenberg who began staking out opposing territory in the 1950s, writing "American Action Painters" and "The Tradition of the New." Rosenberg struck his real blow to Greenberg's commandments with the essay "The De-definition of Art." In it he made the case that, "Painting, sculpture, drama, music have been undergoing a process of de-definition. The nature of art has become uncertain. At least it is ambiguous. No one can say with assurance what a work of art is – or, more important what is not a work of art." In harmony with this proposition, Fluxus scholar Ken Friedman stated, "the radical contribution that Fluxus made (to art) was to suggest that there is no boundary to be erased." Fluxus posited no substitute definition.

While Greenberg commanded the post at the avant-garde, George Maciunas (as Owen Smith observes) stationed Fluxus at the rear-garde. Where Greenberg sought order Fluxus, touting the absence of boundaries or definition, embraced chaos. The removal of time-keepers and drill masters raises interesting questions whether one can really be out of step and not in time, or as Fluxus demonstrated simply dancing to a whole new drum beat.

Today, our four panelists draw from Fluxus's free range of possibilities. In his paper, Owen Smith considers problematics when investigating Fluxus' geneology. Anne Collins Goodyear and James Housefield give us glimpses of time as a playground for John Cage. Dennis Summers carries us into the world, shaped by gaps, seams and contested spaces through the lens of collage, where time loses certainty.

"Fluxus out of time: Some thoughts on the fluxus project, notions of the Avant-garde and principals of modern art."
Smith, Owen (University of Maine, Orono; Owen.Smith@umit.maine.edu)

Fluxus type work is part of a long established tradition of utilizing art as a means of investigation, whether it is of art itself, or of political, social or philosophical concerns. In such a process Fluxus interrogates, plays with, and ultimately abandons numerous practices often associated with the avant-garde and modernism, in particular a variety of time related practices. George Maciunas on multiple occasions referred to Fluxus as the rear garde, which can be interpreted in a variety of ways, but here I would like to suggest that this is a self-awareness of the fluxus project to knowingly and generally question the foundations of modern art and more particularly to question the avant gardest chronotopic core of modernism. A number of writers

and scholars have proposed that Fluxus be seen as a part of a tradition that one can trace back to Futurism and Dadaism. This paper will first investigate this genealogy and present how such analyses are in part true but simultaneously miss, or misconstrue more crucial nuances of both the fluxus project and modernist ideas, and second explore a broader view of Fluxus' engagement with time as both a concept and a material.

"Being Cagey: Modeling "Information" Before Visualization"
Goodyear, Anne Collins (Co-Director, Bowdoin College Museum of Art; agoodyear@bowdoin.edu)

An esteemed performer and musician, John Cage offered new models for integrating the multitude of channels of information that transformed modern life in the 1950s and 1960s. Positioning himself, and his unorthodox projects, as receptors for a diverse range of stimuli, Cage helped to fashion new, inclusive strategies for capturing and redeploying data, conceived as composition. In peeling away traditional organizational hierarchies, Cage in turn helped to revolutionize the representation and conception of "noise" as "content."

This presentation, then, looks at Cage's role in creating new paradigms for the representation of information, particularly with respect to the assimilation of new technologies in the visual arts, helping to shape new conceptual strategies for exploring temporality through the expression of simultaneity, and thus powerfully reorienting the relationship the past to the present and the future.

"Seeing and making things not seen before:" Experiencing John Cage's $33^{1/3}$ in context (1969)
Housefield, James (University of California, Davis; jeh@ucdavis.edu)

"I am not interested in the names of movements," John Cage proclaimed, "but rather in seeing and making things not seen before." Cage's $33^{1/3}$, a participatory event with a sonic component, offered an exemplary model of that "not seen before." $33^{1/3}$ premiered on November 21, 1969, during Cage's tenure as composer-in-residence at the University of California, Davis. Twelve record-player turntables with 24 associated stereo speakers ranged around a large room alongside some 300 vinyl records, randomly gathered. The standard speed of an LP (Long Playing) vinyl record, $33^{1/3}$ rpm, gave this work its name. Although the audience received no instructions, in the resulting performance they played records on the phonographs and generated their own sounds. This analysis situates $33^{1/3}$ conceptually and historically. $33^{1/3}$ collapses barriers separating audience from performer and explores sonic plenitude in ways that are consistent with other Fluxus practices. $33^{1/3}$ premiered at a key moment marked by new ideas about music and performance. New designs that made recorded music increasingly portable and private emerged alongside new forms of public musical performance ranging from discotheques and dance parties to then-young FM radio. Cage's experiment in participatory art takes on distinct meanings when understood alongside these contemporary developments and the experimentalism of the arts and sciences that characterized UC Davis circa 1969. A participatory exhibition of $33^{1/3}$ in the Manetti Shrem Art Museum at UC Davis in Fall 2017 that asks whether Cage's experiment can be replicated some 48 years after its premiere underscores the timeliness of this paper.

Saturday, Session 10 4:00-5:30pm

"Collage, Cyborgs, Sex Machines and the Unattainable Woman: The Large Glass, Krapp's Last Tape and The Flying Lizards."
Summers, Dennis (Independent Scholar/Artist, cco@stage2001.com)

As I've been arguing over the past several years, collage is a way of seeing, not necessarily a mode of construction. Considering cyborgs as collage is trivial, but looking at the human/machine interface in artwork across multiple media can draw out interesting ideas. Throughout his career Samuel Beckett was interested in new technologies. In perhaps his most accessible play, Krapp's Last Tape, not only is there an intimate relationship between the title character and his tape recorder; I will argue that this sex machine is a prosthetic extension of Krapp's erotic desire. The Bride Stripped Bare by Her Bachelors, Even by Marcel Duchamp has long been understood as a diagram for machine human hybrids. The male devices within the work depend on numerous prosthetics in a complex system designed to achieve a sexual communion with the female presence. Much like Krapp they fail in this attempt. In contrast James Brown never fails. His song Sex Machine is a paean to his success with women, but explicitly also his machine-like capacity and endurance. However, in the Flying Lizard's cover of the song, and particularly in their video, they cleverly invert the message in a provocative way that both emphasizes the idea of the unattainable woman and punctures the macho posturing of the original. Analyzing these three works through the lens of collage (gaps, seams and contested spaces) finds surprising consonances and dissonances.

10K "Contemporary Biopolitics in Science Fiction" *MU224 Gila*   **Chair: Jeffrey Yule**

Time Travel and the Pre-Existing Condition
Richardson, Laura (Rice University; lkr1@rice.edu)

The Trump administration's American Health Care Act would potentially lift restrictions on insurance companies' treatment of pre-existing conditions, leaving millions of Americans with higher healthcare costs for a variety of "ailments." Exactly which conditions would be considered "pre-existing" is debatable, and it's obvious that neither the state nor insurance companies have any clear idea of what it means to "pre-exist." At the root of the pre-existence debate lies the American tendency to blame the individual--the Horatio Alger flipside of the lottery of birth and the burden of choice, subsuming health into a facile series of moralized personal decisions. But what does it mean to pre-exist? The time travel genre offers a theoretical toolbox for investigating this question. In this genre, characters carry ultimate responsibility for disturbing and then correcting their own timelines; traveling into the past, men like Marty McFly find themselves beholden to creating the conditions of their pre-existence. Although the circumstance of his travel and disruption of his parents' courtship are accidental, Marty carries the burden of repairing their romance in order to ensure his very presence. Pre-existence is a long-standing concept in human thought. However, the form of pre-existence that contemporary politicians espouse is one that has been circulating in American popular culture, namely in American time travel narratives, since the science fiction boom of the 1950s. This paper examines how the cultural output of time travel narratives speaks to our contemporary anxieties of the Trump administration's demolition of the concept of social health.

The Evolutionary-ecological Dejá Vu of Saber-toothed Predator Loss and Replacement, Anthropogenic Extinctions, and Ghosts: The Thylacine as Locus of Contemporary Extinction Thought
Yule, Jeffrey V. (Dixie State University; jeff.yule@dixie.edu)

In considering recurrent, predictable patterns of vertebrate species extinction followed by replacement, no better example of ecologically driven evolutionary dejá vu exists than saber-toothed predators. Following Cope's rule, species evolve toward larger average body mass, eventually leading to a prey base sufficient to support saber-toothed predators. The resulting megafaunal communities persist for millions of years, but saber-toothed predators never survive their breakdown. Cope's rule and evolutionary ecology being what they are, though, new saber toothed predators evolve, and the process begins again. Biologists pay little attention to this pattern of extinction and replacement; society in general appears almost completely unaware of it. Familiar human experience is limited to extinction, which, absent an evolutionary context and significant time, involves loss followed not by replacement but, instead, recurrent ghost metaphors. Recently, the thylacine has struck a chord with English speaking cultures as a focal example of extinction, having become the ghost that cryptozoologists, scholars, artists, and proponents of extinct species cloning pursue in different ways and that technology allows them to continue pursuing. Considering three central examples—William Gibson's fiction, particularly his most recent novels; Ridley Scott's *Blade Runner* (1982, 1993), which is recurrently referenced in those novels; and Julia Leigh's *The Hunter* (2001) and Daniel Nettheim's 2011 film adaptation of the novel—in light of broader biological and sociocultural contexts suggest the reasons for our thylacine preoccupation and a new perspective on anthropogenic extinctions and the ways in which we might avoid or respond to them.

On Discovering a Postracial Extraterrestrial Civilization in *Forbidden Planet* (1956): "A Man Could Grow to Love It"
Kilgore, De Witt Douglas (Indiana University; dkilgore@indiana.edu)

Why is science, an enterprise that ought to lead us away from irrational attachments to arbitrary social practices centered on race, regularly harnessed to preserving the status quo? *Forbidden Planet* (1956) is a model for unpacking how science's ambitious utopian impulses are often undermined by allied narratives. In the decade of the film's release a new science arose that challenged science fiction's racial conventions: the search for extraterrestrial intelligence (SETI). *Forbidden Planet* is the first film to imagine contact with an extraterrestrial civilization in the spirit of that new discipline. If the extraterrestrials of SF film are mostly thinly disguised racial Others, here is a motion picture that breaks convention by refusing to show its aliens. This absence shifts attention away from creature-feature pleasures toward the kind of scientific extrapolation that heralds a postracial future. However, an adventure plot that works from a familiar template of the future as the extension of militarized and racialized conquest encumbers this vision. The tension between a postracial alien future and one that recapitulates familiar race and gender hierarchies is visibly staged in the film's fantastic settings and machines. An analysis of the film's aesthetic choices reveals the contradictions of mid-century science and how some cultural products sought to resolve them. Thus *Forbidden Planet* illuminates how the human social order, structured by race and gender, often frustrates attempts to articulate a postracial future.

10L "Feminist Technics and Affective Bodies" *MU225 Yuma*   **Chair: Deborah Gambs**

Rescuing Futurism: Rachel Kushner, Feminist Technics, Modernist Technophilia
Murphy, Daniel (University of Notre Dame; dmurph13@nd.edu)

The essay analyzes Rachel Kushner's 2013 novel and treatise, *The Flamethrowers*, as an attempt to imagine the techno-semiotic terms for a politically viable female subject. Kushner's novel rehabilitates the modernist bildungsroman and sends its young, motorcycle-racing protagonist (named Reno) through different 1970s art circles on her way to crafting an identity for herself as an adult and successful artist. Like the novel itself, Reno is drawn to machines, machine "languages," and, specifically, superannuated media, evincing what Mark Goble and Justus Nieland have elsewhere identified as a modernist kind of technophilia. Reno's story hinges on a prolonged dalliance with Italian Futurism, fascinated as she is with vehicular technologies and their transformative cultural effects and 'empowering' re-articulations of the human. Mirroring Mina Loy's early work, Reno imagines that her identity can be productively disarticulated by art inspired by velocity, velocity destabilizing naturalized objects and inveterate cultural geometries and creating its own dimensions. The novel proceeds to layer Reno's coming-of-age narrative with the same dilemmas and determinations Loy encountered in the misogyny and violence inherent to Marinetti's proto-fascist program and hyper-individualist imaginary. By fusing contemporary media theory with a consideration of technics, the paper assesses the novel's would-be political intervention in the wake of thinkers like Donna Haraway, Katherine N. Hayles, Brian Massumi, and Bernhard Siegert. The essay closes by arguing Kushner's novel renegotiates the epistemological problem Loy first discusses in her 1914 Feminist and Futurist manifestos when trying to find the positive, redeeming possibilities of non-human 'objectification'.

Sculptures Out of Time: Art, Theory, and Inside/Outside the Female Body
Gambs, Deborah (Borough of Manhattan Community College, CUNY; dgambs@bmcc.cuny.edu)

This paper presents a portion of my research on abstract, modern and contemporary sculpture by women artists. Using psychoanalytic and post-structural perspectives, I focus on artwork that approaches the apprehension of a relationship between the inside and outside of the female body. In this paper I ask: What happens when we group together works of art from different time frames (contemporary and modern) and what are the results of analyzing these works using theories that are out of time with the artwork and artists' temporality? What are the consequences of setting traditionally modernist abstract carved stone (Hepworth), next to twisted and wrapped yarn tied in a cocoon around hidden objects (Judith Scott), next to a scroll unfurled from a vagina (Carollee Schneeman), next to hanging lacy crocheted metal forms (Ruth Asawa), next to flattened circling aluminum turned into a moebius strip (Lygia Clark), next to ceramic nesting pods (Louise Bourgeois)? What happens when we draw on theorists like Luce Irigaray, whose work of the 1980s might be seen to have an essentializing component, to look at art by Barbara Hepworth, a British modernist whose work spanned the 1940s-1980s? What is to be gained by lifting these works by women artists out of their time period into conversation with one another? What is made more apparent about the temporality of the works, in juxtaposition to one another? And finally, what do we learn about the temporalities of the inside/outside of women's bodies?

Sexuality in Feminist Science Fiction
Tweedie, Isabel (University of Kent; ikt13@hampshire.edu)

Science fiction reflects contemporary realities back to us through the lens of imaginative futurism, allowing us to envision how our world might be otherwise. This futurism serves as the locus of radical Otherness, rather than as a mere chronological register or a prediction of the actual future. Feminist science fiction actively engages with the political potentialities of the genre, positing chilling dystopias that assert the need for continued feminist work and utopian representations of the goals of feminism.

My work explores conceptualizations of sexuality, and the concomitant issues of gender and power, in Marge Piercy's feminist science fiction novel, *Woman on the Edge of Time* (1976). In addressing representations of sexuality across the three literary settings of a realistic 1970's New York and it's dystopian and utopian future potentialities, I focus on three primary sites: the commodification of sex within the marketplace of male pleasure, queer sexual identities which threaten phallocentric and heteronormative systems, and representations of bisexuality and polyamory within utopia. Piercy's juxtaposition of potential utopian and dystopian futures serves to make the reader aware of how their actions impact the future of human kind and to steer them towards progressive actions. Ultimately, feminist science fiction offers a critical medium that functions as a thought experiment, allowing us to explore and envision the future and it is crucial that we critically examine these representations of futurity and incorporate what we learn into feminist theory and praxis.

10M "Posthuman Ecologies 1" PostHuman Network (PHuN) *MU248 Rincon*
        Chair: Zachary Thomas

"More than ever today, nature has become inseparable from culture; and if we are to understand the interactions between ecosystems, the mechanosphere, and the social and individual universes of reference, we have to learn to think 'transversally'. As the waters of Venice are invaded by monstrous, mutant algae, so our television screens are peopled and saturated by 'degenerate' images and utterances. In the realm of social ecology, Donald Trump and his ilk - another form of algae - are permitted to proliferate unchecked. . . We find ourselves repeatedly on the brink of situations of catastrophic self-destruction. How then do we regain control?" - Felix Guattari, "The Three Ecologies" (1989)

Reading *Dracula* With Paranormal Theory
Stoeltje, Samuel (Rice University; sfs1@rice.edu)

One of the many curiosities of Bram Stoker's Dracula is that characters routinely gain access to knowledge of other places and times when inhabiting what are sometimes called "altered states of consciousness." Close reading suggests that this kind of (one might say) "oracular" phenomenology operates in a systematic way: characters enter into states of somnambulism, psychosis, and hypnosis to access the elsewhere and the elsewhen. Conventional hermeneutics equip us to understand such speculative or fantastic qualities of a text as expressions of other, more fundamental realities (the subconscious, capital, social conditions, etc.). But there also exists a current of speculative (or paranormal) theory that may be helpful in analyzing these textual qualities without reducing them to other reality-claims (correlators). I will consult three

contemporary theorists, whom I suggest are part of an incipient paranormalization of critical theory, these being: Michael Haworth, who writes on Derrida's engagement with telepathy; Amy Ireland, a poet and xenofeminist philosopher; and Rasheedah Phillips of the Afrofuturist Affair. Each of these theorists can help us approach Dracula with new and unapologetically speculative methods, arriving at new understandings of how the text works and what it might have to tell us, across time and space.

Non-Human Resistance: Felix Guattari in the Anthropocene
Zehner, Brett (Brown University; brett_zehner@brown.edu)

The gradual cybernetic progression towards a "general ecology," mirroring and eventually replacing nature with the technosphere, has reached its zenith in the declaration of the Anthropocene. Cybernetic networks, moving from command control structures to self-organizing assemblages, have also moved beyond classical fashionings of subjectivity while shaping the very molecular foundations of life. Felix Guattari, forgotten theorist of the Anthropocene, chose to work through cybernetics, bending cybernetic thought to the left. He ventured across diverse fields of psychoanalysis, semiotics, biological autopoiesis, ecology, chaos theory, and cellular automata, always in search of self-organizing forms of life. For instance, in Guattari's machinic animism, pre-personal subjectivities are theorized as free floating, non-human assemblages. For Guattari, these pre-personal subjectivities are incorporeal transformations undergirded by immanent material encounters, and operating through contagion, not cognition. It is my claim here that Guattari's most enduring contribution to political philosophy is his counter-cybernetic model of pre-personal, group subjectivity, bound to a speechless, mattered, and wild ecology. This paper asks the question– If contemporary conceptions of human agency, at the scale of the geologic, are re-examined via perspectives unconstrained by the individual liberal subject form, then what sociality may emerge? From a decolonial, anti-humanist perspective, I expand Guattari's counter-cybernetic notion of pre-personal subjectivity as a way to think with what Fred Moten calls, the beyond of the beyond, or the ungovernable. This essay theorizes Guattari's Anthropocene– a geological agency beyond "the human," an Anthropocene marked by the non-human resistances of geophysics, biodisturbances, and their subjective mutations toward a more livable future.

Programmed Intentionality—The Postphenomenological Trade-off
Rowley, Mari-Lou (University of Saskatchewan; mari-lou.rowley@usask.ca)

Driverless cars, insta-dating, cloud(ed) memory, fabricated news, robo-lovers, online surveillance—technology is changing not only how we interact with others and our environment, but the very nature of "being-in-the-world," or dasein. In the postphenomenological world, Heidegger's danger of becoming enframed by the technology we are destined to create has already happened. Identity is malleable and intentionality programed. Personal data is exchanged for convenience and the ability to connect, share, and engage—or to shop, rant, campaign, and troll at will. As a poet, and sociocultural 'canary in the coal mine,' I am interested how we co-evolve with changes in languaging and emotioning that occur as a result of any new technology, whether it be stick in sand, ink on parchment, or hand on keyboard. If the interface is the site of interaction with a medium or system, is it "enactive" in Maturana and Varela's sense, where user and system co-evolve? If so, what are we evolving into? And in the rush to develop the latest

technological toys and tools, where is the body in all of this? My paper examines intentionality in light of Don Ihde's phenomenology of technics, where our actions are not only mediated by embodiment, hermeneutic, alterity, and background relations with the interface, our interpretation and communication is mediated by the program (or app)—a phenomenon I call "programmed intentionality." The critical discourse, then, is how does technology alter languaging, emotioning and dasein—and why does it matter.

Workshop Session 10: "Slow Time Exercises: Stones" with Paul Harris *Digital Arts Ranch, DAR*

This workshop offers encounters and engagements with stones in order to explore and operationalize slow time. Participants will select rocks to work with through contemplation, writing, and art-making. We will attend to transformations of rocks as we render them in words and treat them as aesthetic objects for display; we will attend to transformations of our bodies and awareness by stones as we work with them. The workshop will provide geological contextualization of the stones being worked with, and introduce an aesthetics of viewing stones developed for centuries in China and Japan, and now found throughout the world.

Workshop components:
• Phones for Stones: begin by exchanging your phone in return for a stone
• Writing Rocks: short writing exercises with your stone
• Stoned Thinking: discussion of concepts of time evoked by stones
• Viewing Stones: create a display of your rock, using materials provided
• Rolling Stones: using rocks dipped in ink, make paintings by rolling the rock across paper

On completion of the workshop, participants will have a stone to take home, writings about it, and an ink-painting made in collaboration with a stone.

Slow Time Exercises are an integral component of SLOW LMU, an initiative launched in fall 2016. SLOW LMU invites participants to engage in contemplative practices, including "slow time exercises" designed to be conducted in designated Slow Time Zones on campus, including a dry landscape garden and a meditative labyrinth. Slow Time Exercises are modeled after the Spiritual Exercises designed by Ignatius of Loyola, founder of the Jesuits, which emphasize the role of imagination and affect in discerning "the movement of spirits," or knowledge of the heart. "It is not abundance of knowledge that fills and satisfies the soul," he writes at the opening of the Spiritual Exercises, "but to feel and taste the matters interiorly."

Workshop Session 10: "Science & Fiction Workshop" with Matt Bell (Continued) *The Virginia G. Piper Center for Creative Writing*

Matt Bell will run a creative writers' workshop on science and fiction writing.
Bell is author of *Scrapper*, *A Tree or a Person or a Wall*, In *the House Upon the Dirt Between the Lake and the Woods* and several other fiction books. He is also author of a non-fiction book on the classic video game Baldur's Gate II. His writing has appeared in Best American Msytery Stories, Tinn House, The New York Times, The American Reader among other publications.

Keynote – "The Accelerationists" McKenzie Wark
MU221 Arizona
5:45 PM – 7:15 PM

From the twenties to the sixties, a small band of British scientists, science journalists and science fiction writers maintained a popular front against fascist irrationalism and against the inroads of corporate power over science. It was called the Social Relations of Science movement. Close to its center were a handful of first-rank scientists who also happened to be Marxists, and occasionally also successful writers in a wide range of genres from intellectual history to science fiction. They include JD Bernal, JBS Haldane and Joseph Needham. In the same orbit were pioneering feminists who made the connection between reproductive technology and the changing fortunes of women, such as Charlotte Haldane and Naomi Mitchison. Here I want to sketch a work in progress that would retrieve what is relevant about these intersections for our own darkening times.

Prisms Festival Concert Series: "Arizona Contemporary Music Ensemble (ACME)"
7:30pm, *Katzin Concert Hall*

JP Lempke, *}D rie- +08 9 Soul#less&& Hus.kk4* for ensemble (World Premiere)
Cameron Robello, *Do You Trust* for ensemble (2017) (World Premiere)
Toshi Ichiyanagi, *Still Time* for solo flute
Olivier Messiaen, *Quatuor pour la fin du temps*

Dance and Reception 8:30 PM – 11:30 PM *Graduate Hotel Ballroom and rooftop bar, 225 E Apache Blvd, Tempe, AZ 85281*

Sunday, November 12, 2017, Session 11, 9:00 AM – 10:30 AM

11A "Shakespearean Entanglements and Ecosystem Poetics" *MU236 Mohave*
        Chair: Stephanie Shirilan

Air, Honor and Shakespearean History
Shirilan, Stephanie (Syracuse University; shirilan@syr.edu)

A contradictory set of early modern commonplaces (persisting in modern use) argues that air is both the sign of emptiness and the site of hidden meaning and potencies. When we refer to ideas "in the air" we invoke a worldview that understood bodies to be part of an ecosystem wherein thoughts and feelings shaped temperaments that were deemed to be coextensive with environment. The project to which this paper belongs argues that Shakespeare's theater offers an indispensable archive for studying the tensions between air's purported immateriality and dominant contemporary theories of perception, imagination, sympathy and other occult

transmissions (including grace) which were understood to have worked, like the plays themselves, through the medium of air. My proposed paper takes up this year's conference challenge to think "out of time" in two ways: first, to illustrate how the synesthetic richness of Shakespeare's pneumatic language might newly orient us to the distributed cognitive ecology (the "breathing world") of the early modern theater and the broader ecosystems to which it is metonymically tied; and, second, to observe the ways in which Shakespeare represents manipulations of memory as manipulations of air in the history plays especially, inviting the audience to meditate on the didactic purposes and procedures of history as a genre. My discussion will focus on the theme of honor as a thing of air in Henry IV Part 1 and on the homophonic exchange of air/err/heir that subtends its plot of the prodigal prince's reformation.

Shakespeare and Speculative Biodesign Futures
Pataranutaporn, Pat (Arizona State University; ppataran@asu.edu)
Fazel, Valerie (Arizona State University; valfazel@asu.edu)

The purpose of this research is to use a visionary model of narrative exploration evinced on the Renaissance stage in speculating and re-imagining the future of biodesign. Intersecting biology, design, and technology, the field of biodesign explores how biological materials and design strategies might solve complex global problems such as how the use of microorganisms to degrade toxic chemicals in drinking water. Reaching back through time and intersecting Renaissance drama's imaginative renderings of cultural beliefs with 21st century biodesign considerations, this presentation offers a scenario where humanities and science scholars enter a shared conversation that hypothesizes on how speculative narratives might influence the future technologies that impact biodesign. Examining elements from three dramatic works by Shakespeare, one of the most influential dramatists of the early modern stage, three narrative strategies manifest innovative performative subjects as models of speculative thinking: creating agency for an imaginary component (ghost father in Hamlet), exploring outcomes between the imaginary and the real (the relationship between Ariel and Prospero in The Tempest), and the influence of metaphysical imagination (flying daggers in Macbeth) that can be used for speculating a host of innovative futures. The significance of Shakespeare's innovative narrative framework is, unlike the literary gothic, in a diversity of narratives and ways that story can play out. Therefore, this work argues that the use of Shakespeare's narrative framework for speculating and re-imagining the cultural mores might result in a vibrant spectrum of imaginative futures that transcend beyond the speculative models of science fiction narratives. This richness of imagination will be the fuel for the better innovative solutions in field of biodesign and beyond.

The Temporal Arborealities of *The Tempest*
Hogue, Jason (University of Texas-Arlington; jason.hogue@uta.edu)

Jeanne Roberts has suggested that Shakespeare's play *The Tempest* imagines "a new kind of world" in which "the human hierarchy on the island is temporarily confused," blurring the lines between not only humans and animals but also all manner of creatures, organisms, materials, and spirits. However, little attention has been paid by posthumanists and ecocritics to one such blurring that warrants critical investigation: the play's grafting of the body of the humanoid sprite Ariel into a "cloven pine," where he is painfully incarcerated for twenty years. This

merging of human and plant offers a site for thinking about and with the arboreal material of *The Tempest's* island, which, I argue, plays an important role in the telling of the story beyond simply providing setting or background. Following Iovino and Oppermann's theory of "storied matter," as well as emerging trends in critical plant studies, I submit that this arboreal-humanoid hybrid challenges us to imagine a vegetal, arboreal way of being that evokes a nonhuman temporality embodied in the slow growth and long life that are characteristic of arboreal existence. Thus, Ariel "does" or "serves" nonhuman time in not-quite-solitary confinement, materially merged to the slowly expanding tree trunk. Despite its early modern date, then, *The Tempest* contemplates a model of more-than-human entanglement that acknowledges an experience of pain in such an encounter. However, this model also perseveres through these potentially painful, alternative temporalities, a useful speculative exercise in trying to imagine different visions of a posthuman world.

11B "Pathologies of Time: Stability and its Discontents 2" *MU228 Cochise*
Chair: April Durham

Timothy Barker's 2012 book, Time and the Digital, collated perspectives on time in Deleuze, Serres, and Whitehead to theorize a notion of time that is thick, dynamic, and multiple. In this way, he proposed that all aspects of art, scientific inquiry, and everyday life are involved in a complex becoming inside the operations of flexible, unpredictable movements of time. The idea of continual becoming has been circulating for some time now and informs work by Elizabeth Grosz, Karen Barad, Barbara Bolt, and others as they theorize the ability of subjects and objects to transform each other in a linear manner, through their situated relations. What this complex notion of time also carries is a groundlessness that is unstable, unreliable, and even pathological. While we might be excited about the possibilities of non-linear, a-logical time, we also are often compelled to meet it with the need to normalize it or make it recognizable and "healthy." This two-panel series seeks to develop a conversation around how pathologies of subjectivity, relational dynamics, and sociability (i.e., illness, dysfunction, disruption) can be considered in complex orders of time, such as digital or queer, beyond the need to resolve the pathology or to impose well-known structures of stability. The reaction to the horrors of disorder and chaos largely consists of balancing gestures intended to return the situation to stasis. We wonder what other responses to instability might be of interest as we consider the prospects for navigating the elastic complexities of a normative time.

The Fracturing of Time and Re-Making of Humans
Bennett, Katherine (New York University; katherine.bennett@nyu.edu)

Electronics are becoming smaller and smaller, enabling bots to become further embedded in our lives. We wear bracelets to monitor our steps and heart rate. We pull electronic maps out of our pocket that relocate to   our current position on the globe. They are tools. They are invisible software applications. These bots mediate our experience of the world. They shape how we move around cities, how we communicate, our identity and our relationships. Mobile phones are an extension of our bodies, enabling us to always be connected to the network. Our bodies are re-wired to always be "on" by responding to every ding and buzz from our pocket. We are constantly being bombarded with information. The design of these bots shape and influence us in subtle ways – from not being able to recall phone numbers from memory, to how we

communicate with each other. While we use these tools to eliminate duller moments in our lives, we also use these machines to craft our image and identity. At the same time, these bots are shaping our interactions with each other. We are in the midst of a silent battle with these bots and most do not realize it. Through a discussion of recent projects from my own studio research practice and those of other artists, I will discuss how technology is restructuring our language and understanding of time. Digital applications warp our notion of time, fracturing it with the ability to re-enter previous moments. How does this access shift our understanding of a particular moment, especially as we re-enter it and over-write it? How do these events affect our memories and shape our identity? I will also discuss projects where technology is shifting our relational dynamics and is impacting our sociability, for the good, the bad and everything in-between, as we move further on the continuum of being posthuman.

Time on the Rebound: Information Overload, Motion Sickness, and Cognitive Elision in Elastic Media Temporality
Shin, Haerin (Vanderbilt University; haerin.shin@vanderbilt.edu)

This essay explores the disruptive kinetics of media time through the lens of information overload. The entanglement of time and movement is a built-in dynamic in the operational mechanism of digital media content production. The tension between the maneuverability of digital technology and the prescribed technicity of physical spectatorship recuperates experiences of time-movement disjuncture conventionally associated with pathology or abnormality, such as motion sickness or distraction. Computer-processing techniques such as 3D modeling, vector graphics, and motion capture enact movement-image on a procedural level, for stasis (the still frame) no longer defines the prior state from which movement arises in subordination to temporal procession. The advent of touch screen interfaces, meanwhile, has overlaid dynamic tactility to the optical/acoustic aspects of the Deleuzian time-image. Thus interpenetrating, neither one ever completely holding sway over the other while determining and enacting each other across the embodied medium, time and movement converge upon a new kind of kinetics that directly maps on to the spectators' physical experience of time through a newly emergent trend of media production: information overload. Whether in the form of higher resolution or increased frame-per-second ratio, computer-processed imagery often contains more information than the human body can process, responses to which vary across physical aversion to cognitive elision such as motion sickness or distracted viewing. Select action sequences from The Hobbit series (2012-2014) and the transformation scenes in Transformers (2007), for instance, show how pixel density and the moving parts' multiple vectors of disparate magnitude respectively create the effect of condensed and accelerated time. Exploring the kinetics of time-movement disjuncture in digital media through close readings, and drawing from Mulvey, Baker, Deleuze, and Gumbrecht, I claim that the disruptive impact of information overload creates a new kind of aesthetic experience that relies on the asymmetry between cognition and perception.

Walking as Ontological Shifter
Calderaro, Bibi (Graduate Center CUNY; bibicalder@gmail.com)

"Walking as Ontological Shifter" bifurcates from an aesthetic social practice, tending towards pedagogy and healing. Walking as intentional performatic act is forwarded as medium to research how the virtual is actualized and returned to virtuality. It engages parallelisms and

contact points between the time-based, neuroscientific concept of Reentry (Edelman and Tononi) and a Deleuzian speculative philosophy whereby the possibilities of difference from repetition are explored. I critically explore how the body is site of integration of the epistemological (cognitive and pre-language affective processes) and the ontological (being and becoming), while it is site of the transduction between 'self' and 'world.' Complex relationships between 'inside' and 'outside' are explored from a post-thermodynamics, neo-cybernetics perspective, via physical immersion in 'green,' 'natural' spaces where the conditions of possibility for these meetings to occur at a slower speed and softer touch are maximized. New conceptualizations of a dynamic understanding of subjectivity as it pertains to human and more-than-human relationalities are examined under the hypothesis that epistemic shifts about different concepts of time may be reflected ontologically—as embodied cognitive and affective processes, in non-hierarchical, non-anthropocentric relationalities. This is a speculative model for difference that engages the spiritual/individual as it inhabits the political, and vice-versa. Walking is a medium that counters the speed and turbulence of today's human-environment relationalities by instilling a slower pace grounded on the materiality of absorbent matter as found in 'nature.' The conditions for these processes to occur softly are here maximized, challenging pathological/volatile temporalities produced by today's big data environments.

11C "Posthuman Ecologies 2" PostHuman Network (PHuN) *MU240 Navajo*
Chair: Celina Osuna

"More than ever today, nature has become inseparable from culture; and if we are to understand the interactions between ecosystems, the mechanosphere, and the social and individual universes of reference, we have to learn to think 'transversally'. As the waters of Venice are invaded by monstrous, mutant algae, so our television screens are peopled and saturated by 'degenerate' images and utterances. In the realm of social ecology, Donald Trump and his ilk - another form of algae - are permitted to proliferate unchecked. . . We find ourselves repeatedly on the brink of situations of catastrophic self-destruction. How then do we regain control?" - Felix Guattari, "The Three Ecologies" (1989) The Post-Human Network (PHuN) would like to extend a call for abstracts (250-words) for a series of panels at SLSA titled Posthuman Ecologies. We plan to organize up to three panels inspired by Guattari's Three Ecologies (the mental, the social, and environmental).

"Narrative as Contagion: Lovecraft, Posthumanism & Infected Ecology"
Grant-Young, Josh (University of Guelph; joshgrantyoung@gmail.com)

Alan Moore's exploration of the Lovecraftian Mythos through the comic series Providence presents an intriguing claim which drives his interpretation of Lovecraft's work: "Any effective narrative acts as a contagion". But what manner of contagion is present within the Lovecraftian Mythos and Moore's own interpretation of it? The contagion of fear (contagion defined as "the transmission of idea or emotion from person to person") represents an affective narrative or virus which morphs individuals and worlds alike. The Lovecraft Mythos, in Moore's exploration, is exactly this: it upends perceived binary understands of human/nonhuman and dream/reality. Like bacterium or viruses abound in our world, literature seems to be endowed with the capacity to infect and change our perceptions and ecologies. Within this paper, I contend that there are fecund explorations of the porous boundaries of the human and nonhuman within these pieces of

literature: a simultaneously terrifying yet fascinating rejection of human exceptionalism, our conception of time and the epistemological problem of humanity's limited knowledge and tools for interpretation. Last, I explore the role of horror literature in the posthuman project, contending there is ample space for using horror as a method of interrogating the human subject and the project of meaning-making touted by humanist philosophy. Here, literature might be endowed with a capacity to aid in critical examinations of our present conceptions of ecology as we become acutely aware of the porous mesh which binds human and nonhuman.

"Time Machines: Synchrony, Change, Extinction in Four Thousand Islands along the Mekong River"
Gan, Elaine (University of Southern California; eganuc@gmail.com)

H.G. Wells' 1895 novel introduced us to a modernist conception of a time machine, a humanmade device that renders time as place, a mode of transport that shuttles through a past, present, and future like beads on a string. Wells' lone time traveler witnesses our earth's planetary destiny: in thirty million years, the world will end facing an unforgiving sun that never sets. Wells' modernist future is a world without time. My paper explores a posthumanist temporal framework in which a terrestrial-aquatic multispecies assemblage enacts a time machine that comes into being through synchrony, change, and extinction. I argue that close attention to multiple temporalities and historical contingencies at play in specific landscapes opens up critical pathways for approaching a more-than-human Anthropocene. Situated in an inland archipelago of the Mekong called Si Phan Don or Four Thousand Islands in Laos, I follow an assemblage of plants, water buffalos, catfish, and humans through their entanglements with river currents, raging waterfalls, and rainfed fields. Here, islands appear and disappear with the seasons; river and rain structure life and death in various kinds of synchronies and transformations; unexploded landmines, colonial ruins, and invasive species linger in the shadow of hydropower dams yet to come. This paper considers the archipelago as an elusive time machine conditioned by unruly and incommensurable temporalities of life and nonlife. I combine field observation, environmental history, feminist theory, and speculative fiction as critical-creative tools that might render the catastrophic Anthropocene as an indelible yet temporary modernist glitch.

Reflecting on Nature's Destructive Power, through Giacomo Leopardi's *Broom, or Flower of the Wilderness*
Gibson, Alice (Kingston University; al1ceg1bs0n@hotmail.co.uk)

In his last poem, *Broom*, Leopardi offers a grand statement on human fate, comparing mankind to the tenacious shrub that springs up in the wilderness of volcanic ash around Mt. Vesuvius. Leopardi portrays Nature as fierce and unmoved by the frailty of humankind: 'Nature has no more esteem/or care for the seed of man/than for the ant'. He rewrites in Vesuvian terms Lucretius's account of the eruption of Etna and conveys the spectacle of Nature's cruelty, depicting a force that can partly destroy with the slightest whim, and can with movements not much greater, totally annihilate.

Following an elucidation of Vesuvius's destruction of Pompeii in AD 79 and the probable repetition of eruption in the future, *Broom* closes with a meditation on the humble presence of

the transient plant, who will succumb to the cruel power of subterranean fire – a stark warning to humankind, who despite being fragile, continues to presume immortality.

The 'awe and admiration' in the closing pages of Kant's *CPR* evoked by the 'starry heavens above me and the moral law within me' are dwelled on in Leopardi's work. As in Kant's reflections, Leopardi creates a sense of the annihilation of one's importance as an animal creature, which must give back to the planet (itself a mere speck in the universe) the matter from which it came. I examine Leopardi as a geological thinker of mass extinction and unearth the resources he offers to attempts to rethink our place in the world, particularly in relation to finitude.

"POST?- Helen Mayer Harrison and Newton Harrison Ecology Uncertainty"
Paden, Jon (University of California, San Diego; jpaden82@gmail.com)

On a chance encounter in Santa Cruz, I happened into casual conversation with Newton Harrison and presented him with the question about extinction. I asked : if we have a full set of DNA of an extinct animal and can bring it back is it still extinct? His reply was yes, because you do not bring the ecology back, its ecological system has been destroyed and thus it is still extinct. Our conversation spread into other avenues but this stuck with me. As I pondered his theory I drew comparison to our own dilemma of habitat destruction and what we fear is the end of the earth. Naturally working in theory of progressive technologies I applied this thought to post-humanism. If Newton is right we constantly live in a state of post-humanism due to our ever-shifting ecology through technology and body modification. The fashioning of iron into a blade created extension of self and an extinction of humans without iron, just as fire eliminated pre-fire humans, engines destroyed the ecology of distance by augmenting the body through driving machinations; the mechanism of change is culture. Technology creates the super human state from the previous established state normalcy. This change of state creates a clear distinction between human to post-human. The fact we recognize ourselves as human may mean that it is merely consciousness that defines humanism, so even after a merger with binary worlds we will still be human as long as consciousness holds, only post-human to the current ecology.

11D "Indigenous Knowledges and Alternative Communities" *MU242A Lapaz West*
        Chair: Tom Nurmi

Uranium Time: Mineral Criticism and American Indian Literatures
Nurmi, Tom (Montana State University; tnurmi01@gmail.com)

Toward the end of Leslie Marmon Silko's novel Ceremony, the protagonist Tayo kneels before an abandoned uranium mine. Caressing a stone "streaked with powdery yellow uranium, bright and alive as pollen," Tayo finally understands "the world as it always was… no boundaries, only transitions through all distance and time." In the mineral ore, Tayo rediscovers traditional Pueblo forms of duration and selfhood: the story of his people in radioactive rocks. This paper examines the presence of uranium in indigenous American literatures (Pueblo, Coeur d'Alene, Muscogee) to highlight how native writers articulate the multi-millennial temporalities between rock, land, and story in a nuclear age of particle decay and radionucleotides. Uranium mining on native

lands has a complex history, linking Cold-War politics to tribal sovereignty and public health. So writers like Silko, Ortiz, Alexie, and Harjo represent uranium across time-scales to explore the "pericolonial" meaning of Western inquiry – scientific, medical, and literary – for indigenous activism and authority. Ultimately, though, these writers uncover the lithic persistence of storytelling, an ongoing "greeting of the unseen" that gathers communities past and present. As one character in a Sherman Alexie story declares: "Uranium has a half-life of one hundred thirty-five million years." Another responds: "Shit, I can tell you stories that will last longer than that."

Out of Water, Out of Time: Drought and Animism in Bundu and Sculptors of Mapungubwe
Price, Jason (University of North Alabama; jprice7@una.edu)

Chris Barnard's Bundu and Zakes Mda's Scupltors tell stories about south African communities facing droughts that bring about moments of crisis. Set in different periods, both novels offer shamanism and animism as alternative ways of thinking about the future and time. In Bundu, a story about a clinic that attempts to support Mozambican refugees during a drought, an ecologist of Western science uses instruments to measure the effects of the drought on local flora and fauna. His understanding of time gets juxtaposed with his servant's shamanist understandings of time and environment, which offer a different knowledge of the future. Their differing understandings of the time of the longest drought in the area become more critical as the drought exacerbates the clinic's ineffective efforts to support the increasing numbers of refugees. Set in 1223 CE, Zakes Mda's Sculptors of Mapungubwe portrays an increasingly tyrannical Royal Sculptor, Rendani, who asserts a kind of mastery over another sculptor, Chata. This control risks the community's water supply and sustainability as Chata's !Kung rain dances and his sculpture of a Rain Dancer have proven successful for helping to end a devastating drought in the past, and the community faces yet another drought. Both texts offer indigenous knowledge as alternative modes of measuring time than royal time or the time of Western science and as sustainable efforts to ensure the futures of their communities.

Jaguars, Time and Space: Lessons from indigenous cultures
Kelly, Jennifer (Michigan State University; kellyj24@msu.edu)

In the era of the Anthropocene, time exists while space is unnoticed. Time is often associated with Western worldviews and space with indigenous paradigms. Spatial as opposed to temporal thinking is invoked when humans encounter wild animals, and large predators especially. In this study, I acknowledge jaguars are of the many keystone species that are "out of time". Therefore, I examine through an indigenous lens, how spatial understandings of jaguars may give them more time. I use content analysis as well as empirical data collected through interviews with Cabécar in part of the Mesoamerican Biological Corridor of Costa Rica. Findings reveal human-jaguar relations are spatially understood rather than temporally through the lens of culture. As agents, jaguars are autonomous in motion which results in predation, avoidance and/or symbiosis with humans. Cabécar empirical data and Bribri myths imply felines punish people who transgress social norms, such as incest. Here observations within the shared ecological space of both humans and large felines results in sociocultural understandings of humans and animals as part of a community. I argue indigenous cultures, where people live in close proximity to jaguars, may provide lessons on how to live more spatially rather than temporally, as well as

closer, as opposed to separate from wild animals and nature. Through these understandings, a paradigm of living with as opposed to living above wild animals emerges. Such a spatial framework endorses biological corridors as a way for humans to coexist with wild animals while providing "more time" to jaguars.

11E "Pandemonium" *MU242B Lapaz East*   **Chair: Jacqueline Wernimont**

Encountering the "forgotten pandemic" of 1918
Grumbach, Elizabeth (Arizona State University; egrumbac@asu.edu)
Wernimont, Jacqueline (Arizona State University; jwernimo@asu.edu)

The influenza pandemic killed more people between 1918 and 1920, more than both world wars, yet it's known as the "forgotten pandemic." Early twentieth-century reports put global mortality at 21.5 million, but more recent estimates suggest as many as 50 million, a number which may be "as much as 100 percent understated" (Johnson and Mueller, 2002). Using innovative methods to sonify and haptify data sets, a team of transdisciplinary ASU scholars is designing an installation to "re-embody" flu data. Developing ways for visitors to feel/hear the unfolding of the pandemic in time and space, we highlight the ways in which illness spread across the young state of Arizona. In 1912, Arizona became the last contiguous state to join the U.S.; the flu hit six years later. Stories of the pandemic largely focus on major east coast cities; there is little in national histories about Arizona. This proposal engages the "time" theme in two ways - first, it is a "timely" intervention with the pandemic's 100 year anniversary in 2018; second, our multimedia experience seeks to give visitors a sense of how the pandemic unfolded in time between 1917-1920 in Arizona. Using sources from Arizona archives and the Arizona Department of Health Services, our project includes mortality data, and eyewitness and newspaper accounts in order to re-memory a forgotten pandemic. Our presentation includes a show-and-tell of technologies, methods, and data used to construct these encounters, as well as a discussion of how public health, time, and memory are interwoven.

"I've got the Ooperzootic": A Brief Cultural History of Modern Animal Plagues
Malewitz, Raymond (Oregon State University; raymond.malewitz@oregonstate.edu)

According to the OED, the sheepish exclamation "Oops" was first used in a horse racing column in the Washington Post on November 21, 1921. The dictionary editors posit that the word may be a shortened version of "up-a-daisy" and later "upsidaisy." In this paper, I suggest an alternative to this etymology by way of the "Great Epizootic" of 1872, an event which left nearly every horse in North America sickened with the flu. The history of "oops" and its associated terms "epizootics" and "ooperzootics" illustrate how animal diseases played important but underappreciated roles in cultural productions. These roles dovetail Susan McHugh's observation in "Literary Animal Agents" that animals rarely resist their translation into anthropocentric metaphors for human fears, desires, and other affects in cultural narratives. While for McHugh, animals serve as figures that "dissemble[e] the human," in the case of the "oops" story, the roles are reversed, with the confused human standing in for a sickened animal (437). This reversal is built into the grammar of the term: "oops" is a seemingly spontaneous ejaculation—an instinctual response to a breakdown between intent and reality that describes that condition rather than, as in McHugh's examples, a carefully constructed projection of a world

through animal metaphors. I explain how this process operates through brief analyses of literary texts written by Dorothy Parker, Zora Neale Hurston, and Louis-Ferdinand Céline.

Risus Paschalis: Bilepower and Bowels Humor
Liu, Melissa (UW, Seattle; emliu@uw.edu)

Chronological age and scientific time underpin biomedical technologies used in treatments that stretch life's time while thinning life's quality. Rather than attempting cure, many life extending treatments are created to maintain humans to live with chronic health conditions. With force and speed, medicotechnological progress thrusted us to a place where everyday death occurs in inhospitable hospitals. The aggressively sterilized healthcare environment changes mundane death into anesthetic inhumanity. How might our ultra-tamed individual deaths be otherwise? How might a more considerate, sensuous and inclusive death be conceived and born? Inspired by Bakhtin and Choose Your Own Adventure books, this experimental presentation incorporates the collaborative participation of each audience member's bodily senses and partial knowledges.

11F "Problems in Digital Structures" *MU246 Coconino*   Chair: Michael Black

Axolotls and Perfume Bottles: Two Print Texts Rewritten as Migrations to Digital Media
Luesebrink, Marjorie (Electronic Literature Organization; luesebr1@ix.netcom.com)
Strickland, Stephanie (Electronic Literature Organization; stephanie.strickland@gm.sic.edu)

Part 1 Regina Célia Pinto's Reading of Cortazar's Axolotls Axolotls, a story by Julio Cortázar, is reconstituted by Pinto in 2004 to a web piece, Viewing Axolotls. Its Spanish text is translated into Portuguese and English, and its meaning is expanded by practices specific to its contemporary online environment. Pinto's use of Flash and pop-up windows are features threatened in current browsers, yet her devices are remarkably current: data visualization to tell part of the story, an AR kind of crossing into the aquarium, use of games to advance the plot, and anchoring to an original print story. Part 2 Coverley and Strickland's Reading of "To Be Here As Stone Is." To Be Here as Stone Is a poem concluding Strickland's print book, True North, and a heavily linked node in her StorySpace True North, was translated in 1999 to a hypermedia poem by Strickland and M.D. Coverley. Because it incorporated images, links, layers, Midi sound, and Anfy Java applets; because it was coded for three different browsers, each of which used different programming sequences to produce layers; and because it used a complicated line-length spacing system, almost any change in browser software threatened its screen image. Using Virtual Machine software, it is possible to reproduce the operating software from Windows 2000. In this way obsolete practices can be preserved, if in somewhat different form. This "retrieval" shows both the limitations and the opportunity of VM emulation.

How "Open" is Open Access?: Structuring the Future of Humanities Research
Black, Michael (University of Massachusetts Lowell; michael_black@uml.edu)

In the past decade, humanities organizations have moved from making statements explicitly embracing digital open access policies to building platforms supporting them. At stake, these policies and platform documentations note, is not just the need to support changing needs of the future of scholarship but also the need to facilitate the public availability and preservation of

academic writing and research data. Whereas there is already a growing conversation regarding the merits and risks of open access publishing in the humanities (Mullen 2010; Fitzpatrick 2013; Eve 2014; MLA 2015), considerably less critical attention has been paid to open access policies themselves. This presentation steps aside from questions regarding the economics or disciplinary value assigned to open access works and instead considers how the different implementations of "openness" across a variety of open access platforms in the humanities structure future access to and research performed through them. This presentation argues that "openness" is not simply one side of a binary; rather, projects and repositories in the humanities that claim to be open structure access in a variety of different ways, imposing restrictions that privilege a particular kind of reader/user model. This presentation will examine a survey of open access platforms in the humanities, comparing them to those found in the natural and social sciences as well as licensing models used on the web outside of academia, including the Humanities Commons, online editions of *Debates in the Digital Humanities* (2012, 2016), SSOAR, CiteSeerX, Creative Commons, and the GNU Public License.

From the Hive to the Swarm
Barilla, James (University of South Carolina; jjbarill@gmail.com)

This creative nonfiction essay is about the experiencing biomimetic robot swarms as actual artifacts, in their lab habitat, such as the Robotarium at Georgia Tech, and imagining ethical and existential questions through the lens of biomimetics, as a paradigm for connecting nature and technology. The essay begins with an encounter with feral honey bees which have built their hive in the bedroom wall of a colleague's house, and proceeds to ask questions of using this insect collective as a model for technology. What qualities are we seeking to imitate? What does mutualism mean in a robotic context? Does it make sense to think of "caring" among swarm robots? Rather than consider these questions as exclusively theoretical, this essay seeks to confront them literally, via experience, as a corollary to witnessing biotic behavior. James Barilla is the author of two creative nonfiction books: West with the Rise (Virginia) and My Backyard Jungle (Yale).

11G "Scales of Modernity: Reform, Revolution, and the Sense of History in Enlightenment Urban Spaces" *MU238 Apache*　　　　Chair: Soren Hammerschmidt

The Research Cluster, "Global Cultures of Modernity, 1750-1850," at the Institute for Humanities Research at ASU proposes the following panel for inclusion at the SLSA 2017 annual conference. The purpose of this panel is to investigate, through a number of case studies, how people in this period understood the revolutions of history, especially as it pertained to their own places within global or even universal histories as either a break with or an extension of the past. Our panel proposes that one space in which such grappling with new timelines, histories, and epochs became particularly visible was the city, where the complex layering of humanity's social, economic, religious, and cultural residues lent itself to the contemplation of geologic, longue-durée formations like tradition and heritage as well as to the terraforming brought about by interventions like reform, revolution, and other, comparatively precipitous forms of change.

Urban Modernity: Parisian Luxury through "Foreign" Eyes
Thompson, Victoria (Arizona State University; victoria.thompson@asu.edu)

Signs of the increased availability of luxury goods were everywhere in eighteenth-century Paris: the lavish town homes of the wealthy, ornate carriages on the city streets, boutiques selling expensive consumer goods, and the elaborate dress of men and women in spaces of public display were visual evidence of a growing number of Parisians with fortunes considerable enough to surround themselves with luxury. Scholars have rightly viewed the outpouring of concern over luxury consumption among *philosophes*, physiocrats, and pamphleteers as a reaction to a de facto restructuring of the traditional social order (as commerce and banking enriched a class of "new men") and as part of a larger concern with reforming what was increasingly perceived to be an inefficient and outdated fiscal system. In both of these cases, concern with luxury was shaped by a concomitant fascination and fear with what it meant to be modern. Mixed feelings about the relationship between the traditional and modern were perhaps most clearly articulated in accounts of Parisian life, written by French authors, that purported to be the work of foreign visitors to the city. Drawing on a diverse range of written works from Montesquieu's *Persian Letters* (1721) to Jean-François André's *Le tartare à Paris* (1788), this paper examines the role of the imagined foreigner in debates over urban luxury as a sign and symptom of modernity.

The Constitutional Mosque: Muslims and the Revolutionary City
Coller, Ian (University of California, Irvine; icoller@uci.edu)

The French Revolution was not only a political but a profoundly religious shift. Indeed, revolutionaries could not imagine these two dimensions of social life being separated. Yet the shift from a singular sense of religion as a common faith underpinning the fabric of society to a plurality of religions in which faith became an "opinion" held by individuals was a divisive one. It also had a powerful impact on the shape and conception of the city, once a space organized architecturally and aurally around the public practice of Catholicism, the only tolerated faith. On 24 December, 1789, the National Assembly awarded eligibility for full citizenship to non-Catholics, including Muslims, although they suspended its application to Jews for almost two years. This new sense of a France gave rise to a remarkable series of imaginings both among those who sought to defend the prerogatives of the established church, and those who insisted on religious equality, with all its implications. In particular, rumours spread of temples, synagogues and mosques to be established in abandoned convents, and of Muslims voting for curés and bishops, or even becoming clerics themselves More Muslims were in fact travelling through, and even settling in France than ever before, and there is evidence that, at least in Marseille, they sought to establish a foundation for their religious practice. This paper draws on pamphlets, images and parliamentary debates to investigate how Muslims and Islam were imagined in the revolutionary city, by revolutionaries, by their opponents and by Muslims themselves.

Nostalgia and Modernity: Robert Fergusson's Edinburgh
Hammerschmidt, Soren (Arizona State University; soren.hammerschmidt@asu.edu)

The Scottish poet Robert Fergusson (1750-74) was the poet of an improving, modernizing Edinburgh, with its growing New Town, its developing theatrical scene, and its increasing commercial and cultural importance within the consolidating British nation and its empire. Yet Fergusson noted as well the losses sustained by Edinburgh (and more generally by Scotland) in the processes of modernization and improvement, not least in his fiercely regionalist poems. His

poetry made clear that urban improvements entailed the displacement of older structures: the demolition of Old Town buildings like the Luckenbooths and the Netherbow, and the gradual obsolescence of popular rituals and customs. Like his contemporary James Wilson (c.1730-87), who published mock-elegies on Old Town edifices under the pseudonym 'Claudero', Fergusson fondly memorialized a disappearing cityscape while marking its outdated incongruity with Edinburgh's new urban spaces. A similar effort of comic commemoration underlay his carnivalistic poems: focused on popular urban entertainments and their raucous, rebellious, and sometimes even violent crowds, these poems nevertheless also discovered a seasonal rhythm to these celebrations – another reminder that the modern city remained intimately linked to rural and traditional forms of sociability. In the end, however, Fergusson always returned to a valorization of the city as representing the Scotland of the future. Though he wittily rehearsed the conventional condemnation of urban vices and the praise of rural virtues, his poems finally always re-established the city as a space for the enjoyment of social commerce, usually organised around the conviviality of Edinburgh's taverns and urban crowds.

11H "Time After Time: Cataclysmic Temporalities" *MU229 Santa Cruz*
Chair: Cameron Kunzelman

'But this place will rise again': Bleakness as Aesthetic Category
Kunzelman, Cameron (Georgia State University; ckunzelman1@gsu.edu)

Jim Jarmusch's 2013 film Only Lovers Left Alive tells the story of two vampires who find themselves in a number of different conundrums. In typical Jarmusch fashion, the film is more a series of vignettes than a proper narrative, but the central conflict of the film revolves around the difficulty of finding blood to drink. In the contemporary world, people cannot simply go missing, and so the work of being a vampire is just that: work. In this presentation, I will look to Only Lovers Left Alive as embracing the aesthetic category of bleakness. Following the work of Sianne Ngai in her book Our Aesthetic Categories: Zany, Cute, Interesting, I hold that bleakness is an organizing aesthetic principle that structures contemporary life. I understand bleakness as an aesthetic category akin to a fugue state; a bleak work feels as if it is moving forward, but it in fact never proceeds from its starting point. Through analysis of the narrative, aesthetic, and spatial elements of Only Lovers Left Alive, I claim that bleakness creates a world and work in which time seems to progress along linear lines but nevertheless seems to turn back in on itself through the machinery of immortal vampires, decaying-yet-thriving Detroit, and the overwhelming nighttime that permeates the film.

Temporalities of Collision: Crisis and Melancholia in the Anthropocene
Sperling, Alison (Santa Clara University; alison.sperling@gmail.com)

The second installment of Von Trier's "Depression Trilogy," Melancholia (2011), is in part a meditation on the scalar relation between planet and persons, and the ways in which one might respond to cosmically apocalyptic conditions on earth. Melancholia stages global catastrophe as a literal collision of planets, wherein earth and its inhabitants are forced to try and cope with the reality of the end of the world. The film charts the impending disaster primarily through the character Justine, whose wedding serves as the opening scene in the film. Viewers witness Justine attempt to cope with paralyzing depression at her own party and afterward, but as the

reality of the incoming collision with the rogue planet intensifies, Justine serves as an example of stability and composure for others. This paper interrogates the way in which mental health and depression figure in the film and, more broadly, in theories of coping with large-scale planetary trauma. Drawing from feminist and queer theories of disability and depression from Mel Y. Chen, Ann Cvetovich, Donna Haraway, and Eileen Joy, this paper considers the relation between planetary and individual trauma, and the implications of the potential impossibility of recovery of either in the Anthropocene.

Value-Creation, Dialectical Time, and the Communist Future
Carpenter, Chris (CUNY; ccarpen9@gmail.com)

In this paper I will examine the relation between the time of value-creation and the time of history using Ursula Le Guin's novel The Dispossessed as a focal point. The argument that capitalism structures time to maximize surplus-value creation is not a new one. However, the function of time at the base level of value-creation, and its relation to theorizations of historical time, have been less comprehensively analyzed. One narrates time on a small scale: the seconds, minutes, and hours stolen by the capitalist to extract maximum surplus value. The other is all about the big: decades, centuries, epochs. These temporal regimes of the small have an outsized effect on our ability to think through the same regimes applied in a larger scale. I turn to Marx's ideas about both small- and large-scale temporal models to understand the importance of Le Guin's depiction of the relation between social forms and time in The Dispossessed. I also argue that a temporal re-conceptualization along the lines proposed by Le Guin is essential to thinking through a post-capitalist future. An alternative future can't happen on the straight line of capitalist time. We must imagine a more dialectical temporality in which the process of M-C-M' is not the only game in town. Instead, we need a logic of non-causality, and the Le Guinian beginning point could be this: labor does not create value, because, in the words of Lavoisier, "nothing is lost, nothing is created, everything is transformed."

Slow and Glacial Time in Anna Kim's *Anatomy of a Night*
Barge, Lisa (Lbarge@alumni.stanford.edu)

Set in Amarâq, a tiny village in Eastern Greenland, Korean-Austrian novelist Anna Kim's *Anatomy of a Night* (German: *Anatomie einer Nacht*) dissects a single, impermeable night over which eleven of the town's inhabitants succumb to suicide in what can only be considered a tragic epidemic. Though the suicides appear unconnected at first glance, Kim reveals the true interconnectedness of each of the novel's many characters by retracing the same scenes through different pairs of eyes and, with this longer and deeper look, the reader witnesses the impact even mere acquaintances have upon each other. All the while, the town's glacial backdrop seethes through her pages and grabs hold of characters and reader alike as the tension of each pending suicide mounts. This paper examines the interplay of different temporalities within the novel, particularly how Kim slows time by drawing out each suicide and its interconnectedness by tracing and retracing the events that lead to each death, culminating in one long, protracted human event that stretches out over a single night. I further examine how the tragedy of the town's inexplicable suicide epidemic is both dwarfed by and extends across the geological temporality of an isolating and enduring glacial expanse, so much so that the landscape's menacing indifference evokes a suspicion that its deep chill is not wholly innocent.

11I "Telling Time" *MU227 Pinal*   **Chair: Sean Dempsey**

The Phenomenology of Nonperceptual Sensibility
Dempsey, Sean (University of Arkansas; sdempsey@uark.edu)

In this talk I will explore how a recent rethinking of phenomenology offers an opportunity to consider the similarities between the experimental temporalities of three seemingly disparate fields of study: ecopoetics, sacramental poetics, and the representational strategies and musings on boredom found in David Foster Wallace's posthumous novel about working for the I.R.S. Mark B. N. Hansen, an influential theorist in cultural theory and media studies, has recently built upon Merleau-Ponty's defense of the autonomy of sensation and its excess in relation to any ensuing perception, and imagines what phenomenology might look like if it developed out of Whitehead's speculative empiricism rather than the thought of Husserl and Heidegger. By looking closely at how new forms of media covert sensation into human experience, Hansen suggests that we can gain insight into a "worldly sensibility" or a "nonperceptual sensibility" that was always already there. He attempts to position this worldly sensibility as an alternative to a phenomenological understanding of subjectivity influenced by Descartes "that has been primarily interested in how the raw material of sensation is developed into the higher-order compound that is our perceived experience." Although Hansen himself does not apply these insights directly to literature, I will draw upon James Thomson's "Spring" (1728), two short poems by Gerard Manley Hopkins, and brief excepts from David Foster Wallace's The Pale King to suggest how the experimental procedures in these works may enable readers to attend to this "nonperceptual sensibility" and why these postures of attention are significant.

Virtual and Contained Time in Hesiod
Hutchins, Richard (Princeton University; hutchins@princeton.edu)

Hesiod's Theogony and Works and Days present linear, cyclical, but also images of "contained time"—virtual "ages" always running parallel to the present and waiting to intervene in it. As classicist Alex Purves argues in "Topographies of Time in Hesiod" (Time and Temporality in the Ancient World), Hesiodic time is held in abeyance through agrarian metaphors of preserving goods in jars. For instance, Hesiod describes Pandora as releasing the iron age, contained in virtuality in a jar (Works and Days 90-99). But Pandora's jar, when turned upside down, has been also been shown to symbolize the female uterus (Zeitlin, "The Case of Hesiod's Pandora"). I thus depart from Purves in arguing that Hesiod figures virtual time as contained primarily in bodies—jars only sometimes symbolizing bodies. For instance, classicists have long noted that, in the Theogony (116ff), chaos means not disorder but "gaping orifice" (from khasko: "to gape with open mouth"). Cosmic time itself is, therefore, imagined as released from the mouth of a body. Ouranos blocks Gaia's progeny by "covering" her, and Zeus "swallows" his children to contain their political age. Zeus also defeats the Titans and keeps them under ground in Tartaros, described as a "huge throat" (chasma mega, Theogony, 740). Hesiod, therefore, does not think of "ages" as having futurity, presentness, or pastness (as properties). Rather, for Hesiod, all times are real (cp. Mellor, Real Time)—running parallel, and contained in virtuality, in geographical body-like spaces above, beneath, and around the present space of human time.

"His pate full of fine earth" (Hamlet 5.1.100): Deep Brains and Transhistorical Depressions
Guevara, Perry (Dominican University of California; perry.guevara@dominican.edu)

I look to Shakespeare's Hamlet, who is widely regarded as the West's archetypal melancholic, to argue that melancholy is coextensive with the natural world and that minded states are enacted not only by the brain but also by a neural body that innervates its environment. By locating melancholy within the critical genealogy of clinical depression, I seek transhistorical correspondences between the two to suggest that depression is not merely a figure of pathology but, alternatively, a concave space in the earth—quite literally, a hole—where humans unearth their nonhuman allegiances and where emotion is expressed throughout a cognitive ecology. Mine is not a teleological narrative of how melancholy becomes depression in the modern age of brain science. Nor is it a scientific corrective to historically naïve attempts to understand the mechanisms of depression. It is instead a "touch across time," to borrow Carolyn Dinshaw's metaphor for queer, transhistorical affect (3); it is to be touched by what David Hillman has called "the materialist habits of early modern thought" and to rediscover "thought" as an embodied cognitive process in our present moment (82). The science informing my literary claims is based in part on my research in a neuropsychiatric lab, studying depressive metaphors and the therapeutic effects of deep brain stimulation in treatment-resistant depression. Clinical metaphors of vertical depth—for example, a rain-slicked hole, a fog-shrouded ditch, a vortex of quicksand— I suggest, enact these temporal touches, as they also restore to depression the earthiness of early modern melancholy.

Sunday, November 12, 2017, Session 12: 11:00 AM – 12:30 PM

12A "Modernism and Control meets Women, Idiots, and Animals" *MU236 Mohave*
      Chair: Stacy Rule

Benjy's World: Sensory Perceptual Development in William Faulkner's "The Sound and the Fury"
Mangat, Ajitpaul (University at Buffalo, SUNY; ajitpaul@buffalo.edu)

Critics studying William Faulkner's 1929 novel "The Sound and the Fury" have most often read Benjy Compson as a figure of "idiocy." Taking seriously Faulkner's remark that he "became interested in the relationship of the idiot to the world that he was in but would never be able to cope with," I argue that Faulkner unknowingly offers a portrayal of autism: Benjy's symptoms arise from a lack of fit between his embodiment and the world. Benjy experiences states of sensory overload. This autistic difference in conceptualizing sensory information has led critics to suggest that Benjy exists out of time: from Sartre's influential early essay, in which he argues that Faulkner engages in a sort-of metaphysics of presence by barring the future, to Richard Feldstein's psychological diagnosis of Benjy's behavior as that of a "veritable man-child" to Michael Bérubé's more recent assertion that Benjy "has come unstuck in time." I argue that, where "normal" development transforms sensory experience into verbal thought, Faulkner depicts Benjy as having developed a sensory-based thinking. Although such a "sensory perceptual development" confounds Benjy's caregivers, who understand him to be locked in a solipsistic world, Caddy, Benjy's sister, recognizes that he "can see." Caddy struggles with Benjy to cohere his sensory overload, teaching him to convert sensory perceptual images into concepts that allow for an interpretation of what is going on in the world. I conclude that the

fragmented form of this novel allows for an approximation of the diverse phenomenal worlds that constitute the autism spectrum.

"You don't know what worry is": Time and Apprehension in William Faulkner's As I Lay Dying
Rule, Stacy (Michigan State University; flaher30@msu.edu)

How is time implicated in modern feeling? How does "being modern" or up-to-date organize human subjects in relation to animality? And how does such punctuality shape social expectations of what being affected by animals can feel like? Through a reading of William Faulkner's As I Lay Dying, I examine how the affect of anxiety binds people and animals to specific time constructs in modernity. In Freudian psychoanalysis, both anxiety and animal affiliation are cast as temporal distortions that render people diseased, belated, and even inhuman. The novel rejects such pathologies, translating the hypervigilance of anxious characters into an epistemic privilege. Here, worry is both a gnawing feeling and a feeling that gnaws at or erodes animal objectification. Combining equine behavior studies with anecdotal accounts written by horse owners, I look at the healing influence of the novel's animal protagonist, Jewel's horse. I argue the horse is able to alleviate anxiety's draining temporal pressure and shift to a different kind of time sense. He generates a positive expectancy—the sense that something good and enjoyable is about to happen—thereby countering the always immanent but never-arriving feature of anxiety that wears one out. My reading is an important corrective to affect theory today that conflates affect and animals, positing both as a species of pure, nonlinguistic vitality. Such work removes animals from cultural developments, ultimately forgetting their involvement in historical orders. Textual animals are better understood through a holistic understanding of animal kinds, behaviors, and perceptual modes alongside affective attachments and historical circumstances.

Hypochondriacs, Asses' Milk, and Sea Bathing: Early Nineteenth Century Remedies for Control in Austen's Sanditon
Baugh, Victoria (Arizona State University; victoria.baugh@asu.edu)

Sanditon, Jane Austen's last unfinished novel, remained unpublished in manuscript for decades after her death. Although written in 1817, at a time when Austen herself was increasingly ill, Sanditon satirizes hypochondriacs. As Wiltshire writes about Sanditon "… there are no less than three figures who suffer from hypochondriacal conditions, and the whole text is preoccupied with questions of middle-class leisure and its relation to sickness and the pursuit of health" (Wiltshire 96). What does it mean when Austen's only person of color, Miss Lambe, is assumed to suffer from the same illnesses as others of the middle class? Lady Denham, the rich widow in Sanditon, appears invested in the half-mulatto heiress' time, saying she needs to take asses' milk and sea bathe as preparation to become a match for her nephew. Asses' milk, during the late eighteenth and early nineteenth-century, was considered to help with asthmatics and consumptives and bathing machines were used to allow people to float in the sea without being too far exposed to the open ocean (Bree, Sabor, and Todd). This paper will attempt to investigate the use of "asses' milk" and "sea bathing" in Austen's Sanditon as an attempt to control the time of the young female of color. Taking up work by Wiltshire and Salih on Sanditon and Nussbaum's work on gender, I will investigate the relationship between natural curatives, the

history of obsessions with feeling better, and economic profiteering from natural "restoratives" and a search for recovery and its specific implications for race/ethnicity and gender.

12B "Experiments in Unorthodox Time" *MU228 Cochise*   **Chair: John Hay**

Edgar Allan Poe's Cosmic Clock: Nonhuman Time in *Eureka*
Hay, John (University of Nevada, Las Vegas; john.hay@unlv.edu)

Though frequently labeled "brilliant," Edgar Allan Poe's long-form essay *Eureka* (1848) is the only one of his major works never to be published in a mass-market affordable paperback accessible to students. This bizarre cosmological treatise, published just one year before Poe's death, has only very recently become a popular focus for literary scholarship, and critical opinions on the text are unhelpfully disparate. *Eureka* has been read as an expression of republicanism, globalism, and imperialism; it has been understood as both "absolutely sincere" and a "malicious joke." Modern critics have recognized the text's importance, but, I argue, they have failed to grasp Poe's radical vision of temporal contingency. "I am but pausing, for a moment, on the awful threshold of *the Future*," Poe declares—after insisting that his readers need to be able to imagine an era at least a thousand years ahead. *Eureka*'s novel accounting of time is not the expression of Poe's personal fancy but rather, as Laura Dassow Walls indicates, "the culmination of his lifelong fascination with science." Following Walls's hint, I explore Poe's own reading of figures such as Laplace, Humboldt, Herschel, and Faraday to reveal his ultimate rejection of temporal universality. I claim *Eureka* not only as a key text for Poe's career (indicating a significant stylistic shift toward addressing a posthumous readership) but also as a powerful articulation of the anti-Kantian ethos more recently developed in philosopher Quentin Meillassoux's *After Finitude* (2008).

Problematic Prognostication: The Problem of Observation in Deep Time
Battaglia, Andrew (Rice University; ab85@rice.edu)

In 1932, H.G. Wells delivered the radio speech "Wanted – Professors of Foresight." Describing the technologies on the horizon for the European public, he writes, "Before another half century has passed everybody, so to speak, will be on call next door." Olaf Stapledon's 1930 novel *Last and First Men* anticipates Wells's prediction and answers Wells's *The Time Machine*. The novel depicts the telepathic transmission of the future history of mankind delivered by the eighteenth iteration of the species; the Last Men would spur the First to behave better and thus avert the extinction of the Last. If Wells's novel expresses Victorian anxiety about class and evolution, Stapledon's novel accepts evolution along with its dangers and opportunities. Extinction may certainly be postponed, and knowledge of the future might prevent it altogether. In reading the novel today, the literary scholar faces the problem of observation: who speaks and who listens? This paper uses the German sociologist Niklas Luhmann to untangle the problem of observation in Last and First Men. Stapledon's technical solution, time-travelling telepathy, overcomes the narrative problem of observation, yet thereby implicates his speaker in the problem of self-reference. The narrator seeks to occupy a double space of contingency, in which his world both necessarily follows and is dependent upon a series of events within 19th century human control. The future past invokes a figuration of the future that both enables and makes impossible the text as a warning.

Scientific Epistemology and (Un)Predictable Temporalities in Joseph Conrad's *The Secret Agent*
Galat, Joshua (Purdue University; jgalat@purdue.edu)

This presentation investigates the ways in which Conrad's *The Secret Agent* (1907) confronts the determinism of classical science and anticipates a nonclassical science attuned to the existence of the indeterminable. While classical science claims that reality functions as a teleological mechanism, meaning that future phenomena can be predicted with certainty and thus implying an authority over time, nonclassical science, such as quantum mechanics, acknowledges that some aspects of reality are fundamentally uncertain and unknowable. During the nineteenth century, classical science was the dominant epistemology throughout Europe, and it engendered a remarkable confidence in humanity's ability to come to know, and thereby control, its surroundings. The formulation of quantum mechanics in the early twentieth century, however, disrupted the trajectory of classical science and demanded a radical reevaluation of the nature of temporal existence. After situating *The Secret Agent* in relation to contemporary scientific thought, this presentation argues that the novel recognizes the inadequacies of classical determinism and depicts the destructive consequences of its insistence upon the mastery of time. In the novel, Adolph Verloc is commissioned to shock the bourgeoisie's faith in science by bombing the Greenwich Observatory. Yet as he attempts to execute his design, unforeseen and unexplainable circumstances continuously derail the rigid timeline he has constructed for himself. By demonstrating the power and unpredictability of the indeterminable, *The Secret Agent* establishes a framework for understanding the impending scientific revolution that would subvert the predictable temporalities of classical science and restructure scientific epistemology around that which cannot be known.

The Sublime Becoming of the Anthropocene in *Jude the Obscure*
Manning, Pascale (University of Wisconsin Oshkosh; manningp@uwosh.edu)

In *Jude the Obscure* (1895) Thomas Hardy sets the human against the huge, impersonal movements of geological and species time. The dour figure of Little Father Time, whose "steady mechanical creep" instantiates Darwin's metaphor for the mechanism of natural selection, signals a late-nineteenth-century temporal imaginary (also explored by Eliot, Stevenson, and Jefferies, among others) in which the reader is privileged to bear witness in geological time to the happening of transmutation. I argue that the novel is emblematic of a post-Darwinian tendency to seek to make geological time apprehensible – to see ourselves *in time* – and that in fulfilling a fantasy of witness, it is part of a body of late-nineteenth-century work that exemplifies the condition of the Anthropocene, in which the human paradoxically both finds itself more present in time than ever and confronts the looming specter of its own absence – of being *out of time*. I suggest that the novel's action derives from the central conflict between a principle of vitality and fecundity on one hand and the specter of decay and extinction on the other, embodying Cohen, Colebrook, and Hillis Miller's sense of the "Anthropocene as a twilight concept, as a form of half-recognition that can only occur in the moment of waning." Thus *Jude*, written amid our dawning awareness of the anthropogenic condition, and determined both to make visible operations of geomorphic flux whose temporalities exceed human witness and to lament the tragic casualties of those forces, gives shape to their claim that the Anthropocene is an era of "sublime becoming."

12C "Structures of Our Past and Our Future" *MU240 Navajo*   **Chair: Annika Mann**

Out of Work: Disability in Late Capitalism
Pulsifer, Rebecah (Kettering University)

The rhythms of time in capitalism have marginalized certain forms of biological embodiment, such as people with disabilities. Disability studies scholars and activists have frequently responded to this phenomenon by advocating for the inclusion of people with disabilities in systems of capitalism as consumers, laborers, and producers. At the same time, in the US, non-working but often otherwise able subjects have been understood as disabled. For example, in Hale County, Alabama, a quarter of the working-age population receives federal disability benefits, in part because the community has been maligned by the labor flows of global capital. This paper examines how in US capitalism non-work has been constituted as disability and vice versa. I argue that this yoking of disability and non-work is untenable on at least two grounds. First, as Sunaura Taylor points out, while labor masquerades as the ultimate freedom, capitalism actually disables subjects by reducing their access to time, independence, and health. The disabled subject thus exists as both the excluded other and the normative consequence of labor. Second, the increase of automation in the US means that non-working subjects will soon be a majority, a phenomenon that will recalibrate the relationship between labor and normativity. By seeking to decouple non-work from disability, this paper proposes to reimagine the capitalist subject through the lenses of disability, debt, and dependency.

"Persistence of Character": Optical Toys and the Temporalities of Character in Jude the Obscure
Shubert, Amanda (University of Chicago; ashubert@uchicago.edu)

This paper argues for the importance of nineteenth century optical toys that demonstrated the principle of persistence of vision to the construction of fictional character in the late Victorian novel. Persistence of vision refers to the proto-cinematic optical illusion whereby the visual perception of an object continues in its absence, allowing the eye to conjoin disparate images into a fluid sequence. Optical toys like the thaumatrope, zoetrope and flipbook were patented and sold throughout the century to illustrate the eye's capacity to turn static images into an animated temporal flow. My paper explores the influence of such toys on a narratological phenomenon I will call "persistence of character": the representation of character as it changes over time. My case study is Thomas Hardy's *Jude the Obscure* (1895), written amidst growing public fascination with the representational possibilities for persistence of vision toys—it was published the same year as the first exhibition of the cinematograph, the earliest cinematic apparatus. Hardy's novel dramatizes the radical transformation of its two central characters, Jude Fawley and Sue Brideshead, who undergo intellectual, moral and emotional metamorphoses so extreme that they challenge the boundaries of character's unity across time. *Jude the Obscure* is an experiment in persistence, one driven by a representational quest to develop for narrative fiction an equivalent to the optical toy's elegant and economical embodiment of durational change as the dialectical synthesis of continuity and discontinuity. This argument brings together a media archaeological approach to the history of optical toys, based in archival research and the close analysis of technological objects, with pressing questions in narratology. How might persistence of vision toys provide a new framework for thinking character in terms of duration, motion and change?

Pregnancy and the Time of Waiting in Anna Barbauld's "To a Little Invisible Being, Expected Soon to Become Visible"
Mann, Annika (Arizona State University; Annika.Mann@asu.edu)

This paper explores Anna Barbauld's representation of the temporality of pregnancy in her poem "To a Little Invisible Being, Expected Soon to Become Visible" (1825), particularly how that temporality might work to resist the universalizing, transdisciplinary claims of both medicine and poetics of the Romantic period. That is, scholars such as Robin Valenza and Kevis Goodman have illustrated that during the latter half of the eighteenth-century both physicians and poets argue that their particular arts are not disciplines of knowledge, but are instead universal and comprehensive practices that aim and act curatively upon mankind. These practices do so primarily by producing curative motions in the human body. Andrea Henderson and Heather Meek have interpreted Barbauld's poem according to this medical-poetic discourse by alternately linking the movements of the fetus as depicted in the poem to epigenesist models of self-making (which posit that the fetus develops physical and mental powers over and in time), and by positing the poem's speaker as capable of alleviating the mother's suffering by generating childbirth. In contrast, this paper instead explores Barbauld's poem as a failed performance, one that leaves the reader stranded in stillness, a time of waiting. Ultimately, I argue that by raising and then denying the power of either medical theory or poetic modes of address to make "Visible" the fetus, Barbauld's poem contests the curative powers of both, forcing readers to remain within the stalled time of pregnancy, ruminating upon a body "Expected Soon" yet not present.

12D "Language in Artistic Practices" *MU242A Lapaz West*
            Chair: Chandler McWilliams

Time Out/Time In: A Literary Response to Artists Perceiving Time
Winfrey, Pamela (Arizona State University, Stephens College; pamela.l.winfrey@asu.edu)

Conceptually, humans understand that we have a very narrow and limited relationship to time. But we attempt to construct it and measure it. We try to understand where we fit into this idea of something flowing through us and past us, affecting everything we do. This presentation combines a literary response and a curatorial presentation and explores the realms in which time is bigger than we are, smaller than we are, faster or slower than we are; time whose starting point is different from our own short perspective. These artists explore how to conceptualize a trillion years, how to visualize a relationship between hydro-thermal chemistry, the passage of time, and sensory systems tracing changes outside of the human scale, and how our concept of time is predicated on our embodied existence.

The Disappearance and Emergence of Languages within Artistic Practices
Sming, Vivian (Artist / Independent; vscprojects@gmail.com)

In her recent essay for Documenta(14), titled "Language is Migrant," artist and poet Cecilia Vicuña suggests that as "complex public conversation goes extinct," so are "the many species we are causing to disappear." The extinction and endangering of languages provide a multi-optic perspective to view the forces that have propelled climate change within the otherwise myopic

framing of the "Anthropocene." As languages and species continue to disappear in our contemporary moment, artists have taken it upon themselves to preserve, as well as to create new languages. This talk will situate the linguistic preservation and creation strategies of multiple artists including: Cecilia Vicuña and her nonprofit organization Oysi, dedicated to creating a forum for artists, scientists, and oral cultures; Heidi Quante and Alicia Escott's participatory work, *The Bureau of Linguistical Reality*, a series of workshops organized to generate new languages to better understand or describe climate change; and Gala Porras-Kim's artistic research around the tonal qualities of the Zapotec language.

Transparency, Legibility, and a Linguistic Understanding
McWilliams, Chandler (UCLA; cbmcwilliams@ucla.edu)

In his essay "The Truth According To Hermes," Laruelle takes aim at, "the undecidable coupling of truth and its communication." He works to disentangle these two terms by introducing new way of understanding both truth and the communicative act. His analysis hits the mark for textual and spoken utterances, but falls short as way of understanding how meaning is generated by works of art, in particular contemporary abstract painting and sculpture. The demand that truth, meaning, and communication be coupled with speed and directness marginalizes works that demand more time, the slow read, the lingering view. Even experienced art viewers expect the instantaneous evaluation of symbols and references followed by a near-simultaneous generation of meaning; a simple message, easy to repeat and digest. This paper looks at how meaning is covered over by demands for transparency, legibility, and a linguistic understanding of how meaning happens. http://chandlermcwilliams.com/

12E "Stories for the Anthropocene" *MU 242B Lapaz East*   **Chair: Andrew Logemann**

Airborne Events: Don DeLillo and the Speculative Contemporary of the 21st Century
Enriquez, Jeshua (University of California Riverside; jenri006@ucr.edu)

With his most recent novel Zero K (2016), in which characters pursue human immortality in cryogenic preservation, the concerns of speculative fiction and human temporality become paramount and explicit in Don DeLillo's work. Far from a distinctive break into SF, however, this work represents an organic progression from the themes of alienation and technological mediation in, for example, White Noise (1985) and Underworld (1997). In addition, the porous genre boundaries and incursion of speculative fiction's themes into the literary mainstream, a continuation of what writers like Bruce Sterling termed the "slipstream" as early as the late 1980s, reflects nothing more than the changing preoccupations of mundane life in the empirical world; as Sterling has stated, information and simulation technologies have made extrapolation and technical literacy the tools of daily existence. Critics such as Brian McHale have been examining the "science-fictionalization of postmodernism," and theorists like Jean Baudrillard and Fredric Jameson the science-fictionalization of culture, since the 1980s. However, the transformation of the postmodern/speculative into what in 2017 is simply a contemporary fiction mode, with its unique timbre of post-9/11, social-media-infused, post-factual politics alongside SF elements, remains ripe for critical analysis. My paper examines the trajectory and critical reception of DeLillo's science-fictional novels from 1980s SF postmodernism through the potential caesura of 9/11 in Falling Man (2007) into the contemporary Zero K in order to isolate

key turning points in time that made the speculative in fiction into the mundane, and the postmodern in concern into the daily contemporary.

Coleridge and the Plastic Fossils of Our Time: Ocean Harbingers from the Albatross, Orca, and Deep Sea Amphipods
Lines, Sydney (Arizona State University; salines@asu.edu)

By utilizing the ecocritical lens of Samuel Taylor Coleridge's *Rime of the Ancient Mariner,* this paper and presentation will examine the alarming proliferation of human-made industrial pollutants and environmental destruction from DDT to PCB that are penetrating wildlife as large as whales to the deep sea amphipods that inhabit the Mariana Trench. Necropsies conducted on marine wildlife indicate the long-term effects and impacts of these chemicals, many of which have not been in use for 40+ years, but which are still prevalent enough to halt reproduction in some small orca pods, for example, thereby leading to their likely extinction. It is now known that the Great Garbage Patch swirling in the Pacific Ocean is not a set of islands at all but rather broken down, soupy collections of marine detritus, indiscernible from the phytoplankton marine life rely on for food, which then pollutes the food chain all the way to our dinner plates. Our ocean biosphere is on the brink of destruction between ocean acidification, plastic pollutants, the loss of sea ice, and the number of critically threatened or endangered marine species. Coleridge's albatross has long stood as an icon for the heavy burden carried after a grave mistake. As if to warn us from beyond the grave, the plastic-filled albatross carcasses now littering Midway Island are the literal fossils of our time, while we bargain with Life-in-Death, who may someday soon come to collect from us all since the Doomsday Clock is just 30 seconds from midnight.

"Meddling with the Machine" in the Anthropocene: Modernism and Climate Change in E. M. Forster's "The Machine Stops"
Logemann, Andrew (Gordon College; alogemann@gmail.com)

This paper considers the ways in which literary modernism confronts the ecological challenges of the Anthropocene. In light of our growing awareness of the precarity of numerous species, including our own, it proposes that modernist studies should expand its global reach to embrace larger temporalities and wider geographies, pursuing an engaged praxis that connects disparate elements of modernity. More specifically, I anchor this exploration in E. M. Forster's "The Machine Stops" (1909), which anticipates contemporary theorizations of the Anthropocene, positing a post-apocalyptic Earth that can no longer support human life on its surface and a techno-utopian machine that provides for the continuation of humanity. I argue that "The Machine Stops," in which Vashti and Kuno bemoan that "the surface of the earth is only dust and mud, no life remains on it," is a story where the nested time scales of anthropogenic climate change are performed and visualized. In this formulation, the Anthropocene represents not only an ecological transformation, but also a cultural one. The new modernist studies, attuned to the complex networks of ideas circulating within cultural texts, can play a vital role in tracing the historical, scientific, political, ethical, and imaginative discourses present in modernism's encounter with anthropogenic climate change. My reading of Forster establishes the extent to which awareness of the terrific and irreversible effects of human activity on the environment inform modernist aesthetic praxis, and explores the methods available to literary modernists to address the conceptual difficulty of imagining human agency at the species level.

12F "Gateways through Closed Systems" *MU246 Coconino*   **Chair: Carol Colatrella**

"Desalineación as Open System in Tucumán Arde: The Disruption of Informational Circuits as Social Transformation"
Filippone, Christine (Millersville University of Pennsylvania; cfilippone@millersville.edu)

The objective of the time-based performance Tucumán Arde (Tucumán is burning) undertaken in the Argentine cities of Rosario and Buenos Aires in 1968 was to open closed disinformation media circuits set in motion by the repressive Argentine dictatorship and perpetuated by the mass media. Countering a media campaign initiated by the dictatorship to cover up the joblessness, rising poverty, and infant mortality in the agricultural province Tucumán, the artist collective Rosario Group rejected the material, commodifiable art object in favor of a "political-cultural action" intended to reveal "how the mass media, the official power, and the bourgeoisie altered the truth." Described in the project manifesto as "an overinformational circuit that disrupts or disorganizes (desalinea) the straight linear circuit of mass media coverage", the artists' work consisted in the process of collecting, analyzing, and organizing factual information on site in Tucumán and infusing it, in real-time, back into the media cycle through press conferences, juxtaposing empirical data against the media's "alternative facts". Tucumán Arde sought to disrupt the closed media system controlled by political power with an explicitly open, social and political art generated and amplified by multiple voices. Designed to open an otherwise closed system, Tucumán Arde redressed the mass media through the insertion of the work of art as process to acheive "the dissolution of art into the social".

Feminist Science in Ann Patchett's State of Wonder
Colatrella, Carol (Georgia Tech; carol.colatrella@lmc.gatech.edu)

This presentation looks at narrative strategies employed in a novel about dilemmas faced by women in science, applying critical perspectives developed in feminist theories of science. Ann Patchett's State of Wonder (2011) follows the travels of pharmacologist and medical doctor Marina Singh, who is sent by her company's CEO Mr. Fox to search in the Amazon jungle for her colleague Anders Eckman. Anders has been reported dead, and Marina must find out what happened to him and check up on a company project run by Dr. Annick Swenson, who Anders was sent to observe. Privy to what Marina thinks and what she observes of others, readers recognize the doubts, confusions, and dilemmas she experiences as a woman scientist. The Minnesota-based pharmaceutical firm Vogel supports Dr. Swenson's research into a fertility drug found in the Amazon; but after Anders disappears the company is not in close contact with Dr. Swenson and sends Marina to supply them with reports about the scientific program they are funding. Several ethical issues crop up in the novel, particularly those related to the progress of women in science. Dr. Swenson claims that Dr. Rapp "saw no limitations for women," and she regards her career as owing to his guidance (166). The ethical behavior of the woman scientist is a connected topic. Marina questions her own behavior as she acts within a complex web of circumstances that affect her personal and professional development.

The Depiction of Women in Film and The Bechdel Test
Hastings, Rachel (r.hastings93@gmail.com)

Women have been an important player in film production and have provided valuable input into the film industry. At the inception of film as a medium, "Women sought out challenging and dynamic roles that gave women agency and challenged accepted norms just as often as they conformed to what might be viewed as proper feminine roles" (The National Women's History Museum). However, after the introduction of the Hays Production Code and the rise of the studio system, the depiction of women became more one dimensional. According to The National Women's History Museum, "the film industry during the first part of the 20th century was responsible for reinforcing patriarchal norms; with men occupying most of the positions as directors and producers, female actresses were often cast in roles and publicized in ways that led them to become the objects of the male gaze." The depiction of women in film needs to change so that it inspires women rather than objectifying them. One method that fights for a better representation of women is the Bechdel Test that was developed by Alison Bechdel in her comic Dykes To Watch Out For. The test "is a simple test which names the following three criteria: (1) it has to have at least two women in it, who (2) who talk to each other, about (3) something besides a man" (Bechdel Test). The Bechdel Test does have flaws but the purpose is to fight for women to be represented as well-rounded, valuable characters in film.

12G "Animality and Cultural Frames" *MU238 Apache*   **Chair: Stewart Cole**

"Our Ford," Unfortunately: Human Animality and the Biopolitical Temporality of *Brave New World*
Cole, Stewart (University of Wisconsin Oshkosh; coles@uwosh.edu)

This essay examines Aldous Huxley's 1932 novel *Brave New World* as a depiction of how Fordist industrial practices, when used as societally organizing principles, mandate a radical alteration in humanity's relationship to its animality, illuminating the warped conditions of subjectivity that make possible the ascendancy of factory farming as an institution. If (as Drew Leder puts it) "The farm can become a factory when the animal comes to be viewed as a machine," then Huxley's novel highlights the extent to which, in Modernism's post-Darwinian bioscape—when our status as animals has at last (at least nominally) been widely accepted—our capacity to mechanize animals may be necessarily enabled by our having internalized our own mechanization. Huxley's so-called "Savage Reservation" is savage because it is physically and emotionally messy, flouting the rigid hypnopaedic adages by which World State citizens time, down to every unspontaneous millisecond, the meagre clockwork of their lives. But its savagery is also embodied in the cultural presence of non-human animals whose consistent arousal of disgust amongst the novel's characters functions as a dystopian amplification of our widespread estrangement from the nonhuman in the age of the factory farm, when often (as Paul Waldau notes) "food-on-the-plate [is] the principal way that citizens interact with nonhuman animals." *Brave New World* thus uniquely illuminates the extent to which Fordism is a biopolitical phenonmenon, mapping out the connections amongst the layers of segmentation it mandates (of tasks, of our bodies, of time) and the severing of ourselves from our redeeming animality.

Messenger Pigeons, Raced and Erased
Yang, Melissa (University of Pittsburgh; mey32@pitt.edu)

Pigeons—the dark birds marginalized as "rats with wings" today—belong to the same species as doves, the white birds oft-celebrated as spiritual symbols of peace. Pigeons and doves share the scientific name of *Columba livia*, and have been raced in problematic anthropomorphic ways, and literally, in the sport of pigeon racing. In the spirit of "Out of Time," this talk will analyze objects and papers found in five boxes of archival materials collected by pigeon racer John Yodanis from 1919 to 1987, kept by the Heinz History Center in Pittsburgh, PA. This is part of a larger project on the central yet marginalized role of the common pigeon—and the concept of pigeonholing—in the history of human communications. Pigeons were the earliest birds bred and domesticated, and the fastest method of message-transmission from ancient times until Samuel Morse developed his code in the 1830s. Even after the birds were outmoded, they proved useful—during an 1851 glitch in telegraph service, Paul Reuters "parlayed the use of pigeons in what would become the world's largest news-gathering organization" (Blechman). Pigeon enthusiasts carefully tracked their birds' speeds and pedigrees, and Charles Darwin famously "studied the art of editing, revising, perfecting pigeons into novel forms" to demonstrate his evolutionary theories (Field). This talk examines pigeons as figurative and literal messengers—covering topics from the extinction of passenger pigeons to contemporary pigeon racing—and reconsiders how these birds can illuminate timely lessons, even in our largely post-pigeon-post era lives.

The nahual, the shape shifter that persists through time in Mexican literature
Ruiz-Gonzalez, Mariana (Arizona State University; mruizgo1@asu.edu)

In Mesoamerican tradition, the nahual is a human, usually a priest, that had the power to transform into an animal. The date of birth links the human into a specific animal such as a donkey, pig, jaguar, etc... the human had the possibility to absorb the powers of the animal like the sight or the strength, but at nights the human became a shape shifter. This relation is a prehispanic tradition that persists in Mexican Modern times. The idea of a dual life, between the human and the animal, has evolved but had never lost the magic-religious bind. For example, there are some oral storytellings about Modern nahuales, like a butcher in Milpa Alta (indigenous town near to Mexico city) who shifted into a donkey to still pigs for his business. But, we also have positive examples, in XIX Century "The pitagoric rooster", presented us a rooster with a voice that represents in a satiric manner the ideal of the Porfirian morality. Nowadays, Daniela Tarazona present us with "The kiss of the hare" (2012) to Hipólita, a woman that has divine powers, like inmortality, and that she was transform into a snake; this animal symbolized for prehispanic civilizations to Quetzalcoatl, God of Wind and Wisdom. In this presentation I will try to demonstrate how the nahual persists despite modernity, and how the indigenous dualism resists in the Mexican social imaginary, probably a dehumanization in a positive perspective.

Thomas Hardy's Evolutionary Wordsworth and the Literary Struggle for Existence
Olsen, Trenton (Brigham Young University-Idaho; olsent@byui.edu)

As Robert Ryan's *Charles Darwin and the Church of Wordsworth* (2016) has demonstrated, Wordsworthian and evolutionary philosophies conflicted in the late Victorian period. Whereas Ryan focuses "beyond the literary sphere," I explore Wordsworth's and Darwin's entangled influences in Thomas Hardy's fiction, poetry, and autobiographical Life (3). Hardy's work

emphasizes a Darwinian debunking of many of Wordsworth's beliefs about nature and its relationship to humanity. He uses Wordsworth quotations and allusions to undermine Wordsworth's emphasis on natural benevolence and to explore the painful costs of natural and sexual selection. While criticizing his predecessor, Hardy also identifies with the heterodox elements of Wordsworth's thinking, and considers some of his ideas about the role of poetry, ethics, and even joy particularly valuable in an evolutionary age. This ambivalence extends to Hardy's sense of his literary relationship with Wordsworth, which he viewed through a Darwinian lens. On the one hand, he proudly thought of himself as Wordsworth's literary descendant. On the other hand, he competed with his predecessor in a literary struggle for existence. Hardy's markings and annotations in his personal copy of Wordsworth's poetry and Life particularly suggest a comparison of the two writers' based on their physical and poetic vitality and longevity. Hardy was also highly conscious of their shared identification with place---a literal and literary struggle for survival and territory. While Hardy considers that Wordsworthian transcendence is no longer possible in a Darwinian world, he maintains that evolutionary theory renders certain elements of the poet's work especially valuable.

12H "Posthuman Ecologies 3" PostHuman Network (PHuN) *MU229 Santa Cruz*
Chair: Oswaldo Emiddio Vasquez Hadjilyra

"More than ever today, nature has become inseparable from culture; and if we are to understand the interactions between ecosystems, the mechanosphere, and the social and individual universes of reference, we have to learn to think 'transversally'. As the waters of Venice are invaded by monstrous, mutant algae, so our television screens are peopled and saturated by 'degenerate' images and utterances. In the realm of social ecology, Donald Trump and his ilk - another form of algae - are permitted to proliferate unchecked. . . We find ourselves repeatedly on the brink of situations of catastrophic self-destruction. How then do we regain control?" - Felix Guattari, "The Three Ecologies" (1989) The Post-Human Network (PHuN) would like to extend a call for abstracts (250-words) for a series of panels at SLSA titled Posthuman Ecologies. We plan to organize up to three panels inspired by Guattari's Three Ecologies (the mental, the social, and environmental).

Coordination and the Asymmetry of Indifference : Experiments with *Lanterns* Responsive Media System

Johnson, Garrett Laroy (Arizona State University; garrett.l.johnson@asu.edu)

Animated by a skepticism of agent-based simulation and modeling, post-computational turns running transversal to disciplinary areas have set the stage for enacted approaches to the study of intersubjective coordination and collaboration. Practice-informed readings of distributed cognition and phenomenology undermine traditional individualist understandings of coordination, typically reified by agent-based or behavioral models. These coordinations, such as musicality of a string quartet, the timing of a kitchen crew, or the agility of a soccer team, might be broadly described as ensemble. Bolstered by increasingly accessible and affordable real-time sensing technologies appropriated by responsive media, enacted studies offer new problematics for the group-dynamic phenomenona:

How can we use experiment and responsive media apparatuses to create the conditions for group coordination and ensemble, which does not reduce insights to binary data gathered by sensors? How can we leverage lived experience and skill? How can we collectivize group dynamics instead of reducing to individual agents, without returning to dualistic vocabularies? How do non-human matter and organisms participate in ensembles? Can rhythmic notions of sympathy such as entrainment and resonance point to a non-anthropocentric account of coordination?

Growing on these questions, the author describes several physical-digital-hybrid responsive-media systems, which are explored in experiments, games, movement etudes, and artistic composition and improvisation. Responses and observations from participants shed light on the materiality of coordination. This notion informs a discussion of ensemble which radicalizes somatic approaches via Guattarian ecosophy and ethicoaesthetics.

Tracing the Flow of Material Energy in Carlos Reygadas's *Post Tenebras Lux*
Thomas, Zachary (Arizona State University, zrthomas@asu.edu)

Carlos Reygadas's 2013 film, *Post Tenebras Lux,* works to create an intense and unique experience that focuses on the various ways of being in or becoming with the world. Affective engagement with the audience comes through in moments that subvert typical cues and expectations, bifurcations, and in presenting episodic imagery without distinguishing between actual events, desired events, and dreams: all of these ways of being in the world, or becoming with the world, are shown to be part of an immanent process in the film. *Post Tenebras Lux* works to construct a critique of capitalism through the development of an immanent materialist ethics, addressed through direct and oblique techniques within, ultimately forming an ethico-aesthetic argument in vital, nonlinear ways to show the importance of embracing the problematic, often confusing reality of being materially embroiled in the world. In showing how *Post Tenebras Lux* forms this immanent critique, I will largely be using the concepts of Félix Guattari, Gilles Deleuze, and Manuel DeLanda. I will attempt to detail how *Post Tenebras Lux* tracks what Deleuze, Guattari and DeLanda refer to as the machinic phylum, the flow of material energy, through the three existential territories posited by Guattari in *The Three Ecologies*: the mental, social and environmental in the film. In doing so, I hope to show how this approach to reading *Post Tenebras Lux* can help us form a better understanding of how it works in vital and complex ways that enable *us* to better understand our own complex ways of being in the world, informing an immanent and experimental approach that addresses the ways in which western idealism and transcendent thought play destructive roles in our lives, and the importance of what Donna Haraway calls "staying with the trouble."

Socioaesthetics and Spectacle in *A Dream of Hua in the Eastern Capital*
Bratt, Jonathan (Arizona State University; jdbratt@asu.edu)

In his twelfth-century memoir *A Dream of Hua in the Eastern Capital*, Meng Yuanlao recounts the life of Kaifeng, then capital of China's Song Dynasty. Alternatively praised and derided by centuries of literary critics, Meng's work stands alone among early Chinese-language urban literature in its attention to the city's sensory and aesthetic dimensions, the bustling activity of markets and festivals, and the minutiae of everyday urban life, breaking with its literary predecessors' devotion to exposition of the grandeur of imperial spectacle and the urban built

environment. Details of the sights, sounds, and tastes of Kaifeng's dense residential and commercial districts and crowded streets come to the fore in tangled strands of text that continually shift form and focus. In Meng's memory of Kaifeng, sociality is constituted out of ephemeral assemblages of human and non-human bodies marked by sensuality and desire, collecting and dispersing alongside and below the mediating symbols of state power. In echoes of Guattari, we find in *A Dream of Hua* an eco-social logic of collective subjectivation driven by creativity, intensity, and affectivity, capable of operating through yet beyond society as totality.

Material Diaries: Collaborating with Materiality of Climate Change
Sakrison, Angela (Arizona State University; angela.sakrison@asu.edu)

The Material Diaries is an attempt to explore the limitations and implications of asking a man-made material, fleece, to reveal itself through collaboration. Can we actually collaborate with matter? Or are we just using it to tell our own stories? I spent a month as part of the Fashion Machine team, a site-specific large scale installation using recycled fleece to weave a massive garment that engulfs an entire building. Inspired by the narrative aspect of Fashion Machine and the ways that global cycles and processes of ecological significance can be translated through site specific art practices, as well as the work of Isabelle Stengers on staging, I recorded my daily interactions with the fleece, and executed small-scale experiments designed and aimed at "uncovering" stories from the material. The "experiments" were inspired by pseudo-science and curiosity, with a desire to let the materials reveal themselves and respond on their terms, with a recognition that these stories are inevitably narrated by me. How can we avoid the traps of "storied matter" that place our own narratives on top of materials? Analogous to the way literature works to expand empathy and convey in subtle ways what it's like to be another person, are there ways to convey what it's like to be another material? Can we understand what it means to be a piece of fleece, non-speculatively and without relying on language? And ultimately, does this framework of collaboration help us talk about the materiality of climate change in new and transmittable ways?

Wrap-Up 12:30 PM – 1:30 PM *MU228 Cochise*

This is an open discussion on what went well and what could be improved in the conference with an eye toward SLSA 2018 in Toronto.

Prisms Festival Concert Series: "Rotary Clocks and the Illusion of Time"
7:30pm, *Organ Hall***, free entry**

Jacob Adler, *Opus Claviblasticum* for 3 pianos, percussion
quartet, organ and open ensemble (world premiere)

Opus Claviblasticum is an hour-long work for 3 pianos, percussion quartet, organ and open ensemble. The pianos are tuned to a 13-limit just intonation recipe, enabling extraordinary harmonies and scales not possible on conventionally tuned pianos. The percussion quartet produces a variety of colors with marimbas, crotales, glockenspiels, cymbals, stones, woodblocks, thai gongs, guiros, floor toms, and almglocken. The pipe organ in the ASU organ hall, built by Paul Fritts and Co. in 1992, is based on baroque organs of Northern Europe and is

one of the finest tracker organs in the world. The open ensemble is comprised of diverse electro-acoustic instruments including voices, strings, winds and laptops.