

Bates College

2006 – 2007 Honors Theses Abstracts

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2006 - 2007 HONORS RECIPIENTS**

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*Denotes a combined thesis

**Denotes a double major with 2
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AFRICAN AMERICAN STUDIES

Amadi S. Cisse

Advisor: Elizabeth A. Eames

Returning to the Door of No Return

Walking Goree Island recently, I was struck by its warm vibrant feeling. In my mind I knew that Africans, like me, had taken the same steps I was taking, but in chains. I knew, too, that Goree Island has been the meeting point of different African traditions, and that trading and Islam both came through this location. Both of them persist there today. But it dawned on me that one of the types of trade that I am talking about is the trading of goods, and the other is the trading of human beings. How did such exchanges construct Goree Island? And how do various populations remember them today? As I stood at "The Door of No Return" on Goree Island this summer, these were some of the questions that were running through my head.

I will attempt to answer these questions as I fashion footage into documentary. Researching this paper informs the filmmaking, and vice versa. I will make use of resources from our library such as books, as well as previous documentaries made about the African side of the Atlantic slave trade, and Goree Island in particular.

Sara J. Gusky

Advisors: Baltasar Fra-Moliner and Charles I. Nero

The Africanization of Latin American Literature: Contamination, Invisibility, and Danger in *Del amor y otros demonios* and *El reino de este mundo*

This thesis explores the Africanization of Latin American literature through the incorporation of African-based religions through *lo real maravilloso* in Gabriel García Márquez' *Del amor y otros demonios* (*Of Love and Other Demons*), Alejo Carpentier's *El reino de este mundo* (*The Kingdom of this World*), and Mayra Santos Febres' short story "Resinas para Aurelia" ("Resins for Aurelia"). These literary works exemplify the importance of aesthetics as a challenge/distortion of a hegemonic historical reality by empowering the black body and incorporating the black voice into a dominant discourse. Furthermore, the use of magic realism by these texts sparks a discussion of blackness that is characterized by the tropes of contamination, invisibility, and danger. Each of these tropes speaks to the white, dominant fear of blackness and the anticipated threat that remains inherent in the colonial interpretation of Africinity.

Bridget E. Harr – See Sociology

Jordan T. Williams

Advisor: Erica Rand

Tagging Paris: The Politics of Race, Ethnicity and Gender in French Graffiti Culture

Popular conceptions of graffiti often reduce this complicated form of expression to an act of mere vandalism that is void of greater significance. However, a serious inquiry into graffiti culture reveals that graffiti allows people to exercise their minds, interact with the city around them, join a community, and actively resist some conventional values. Using recent graffiti in Paris as a focus, this thesis re-evaluates terms like politician, writer, artist, and revolutionary through the use of interviews, previous materials produced on the subject of graffiti in the United States and in France, contemporary work produced by graffiti writers and academics, and theory regarding politics, art, nationality, femininity, masculinity, and literature. I do not intend simply to document and explain French Graffiti culture. Rather, I analyze and interpret the ways in which graffiti operates within the context of France. I am particularly interested in how graffiti culture traveled across the Atlantic Ocean, how it has come to interact with dominant French values concerning race, ethnicity, and gender, and how graffiti sometimes reproduces, and sometimes challenges, dominant notions of gender, race, and ethnicity. This thesis aims to provoke my audience to reconsider the ways in which they see, read, and interpret graffiti, political activism, crime, counterculture, and the global community.

AMERICAN CULTURAL STUDIES

Michael J. Wilson

Advisor: David M. Scobey

Social Memory, Democracy, and the History Museum: Museum L-A in Lewiston-Auburn

This study argues that the new community history museum in Lewiston-Auburn, Museum L-A, is poised to be a center for democratic community. It explores the cultural forces that currently affect American museums and the cultural forces these museums emanate in turn; it explores the social and cultural landscape of Lewiston-Auburn; and it situates Museum L-A in these national and local frames. Next, it describes and argues for a progressive conception of democratic community, describes and argues for that community in Lewiston-Auburn, and shows that Museum L-A can and should play a central role in its formation. To gather insight and observations for the study, I consult contemporary scholarship in museum studies and democratic theory, visit various

contemporary history museums and interview their staff, participate in and observe the formation of Museum L-A, and interview Museum L-A stakeholders and other members of the Lewiston-Auburn community.

ANTHROPOLOGY

Sara H. Gips

Advisor: Heather L. Lindkvist

The Commodification of Guatemalan Women's Bodies: The Production of Children for Intercountry Adoptions

Recent news reportage criticizes intercountry adoption between Guatemala and the United States, suggesting that babies are sought out or produced for the "adoption market." This honors thesis examines the validity of such assertions by considering an ethnographic case study of the production of "adoptive children" in Guatemala and how the Guatemalan female body becomes commodified through this process. This thesis employs extensive literary research as well as direct participant observation and interviews both in Guatemala and the United States. Through adopting a critical cultural relativistic position and using a conceptual framework based on feminist theories from medical anthropology and studies of reproduction, this thesis examines to what extent political, economic, social, and inter- and intracountry powers influence the adoption process in Guatemala. By focusing on the production of Guatemalan children for the benefit of intercountry adoption, this thesis seeks to ascertain whether the current adoption system in Guatemala serves the children's and the biological mothers' best interests or whether these interests are subordinate to the interests of American parents who hope to adopt Guatemalan children.

Hannah R. Kusnitz – See Environmental Studies

ART AND VISUAL CULTURE

Abigail L. Crispin

Advisor: Edward S. Harwood

Poetic Memory: Arcadia and Fin-de-Siècle French Modernism

With the unprecedented advances in technology drastically increasing the pace of the modern life, virtues of progress were shadowed by the nebulous ghosts of anxiety: fears of anonymity, alienation, and degeneration pervaded the febrile climate of fin-de-siècle France. Department stores replaced neighborhood shops; the underground metro system rapidly shuttled nameless crowds; newspapers and telegraphs brought the bloodshed of imperialism from Africa into the penny press; electricity illuminated the once unseen; telephones transmitted the impalpable waves of sound. As the government of the Third Republic – adamantly committed to Enlightenment ideologies of rationalist positivism – celebrated the expanding field of scientific knowledge, the French artistic avant-garde began cultivating a language that questioned the very existence of objective reality. Within this complex matrix that constituted the intellectual, artistic, and political milieu of Paris around 1900, I examine the artistic vocabulary of the avant-garde, throwing into relief the embrace of formal and ideological primitivisms against this backdrop of social change. In the avant-garde's abandonment of naturalism in favor of increasing abstraction, this thesis explores how and why the ideals of Arcadia became a theme of such significance in the early years of modernism.

Jamie J. Silverman

Advisor: Rebecca W. Corrie

Mis/Representation of Art and Culture: Two Case Studies in Museum Exhibitions

This thesis investigates two case studies of the representation of culture in a museum context. In relation to the *Into the Heart of Africa* exhibition at the Royal Ontario Museum from 1989, I explore issues pertaining to freedom of speech. I ask how the representation of culture has come to be such a contentious issue, and how museums have chosen to deal with this problem. Secondly, to present a more recent example, I focus on the presentation of Nazi imagery in the 2002 exhibition, *Mirroring Evil*, at The Jewish Museum. These pieces present Nazi art in nonconventional way. The art is shown from the perspective of the Nazis rather than from the victims' perspective. Using my identification as a white Jewish woman as a basis for identifying issues with the presentation of this controversial material, I will determine whether The Jewish Museum possibly made an error in presenting art of this nature. I also explore whether or not art such as this is appropriate and worthwhile academically, socially, and religiously. Additionally, I investigate the social and ethical role and obligation of a museum, in relation to both exhibitions.

ASIAN STUDIES

EAST ASIAN STUDIES

Kathryn A. Rodden

Advisor: Sarah M. Strong

Kokoro and Atatakami: Traditional Values Supporting the Production of Contemporary Pottery in Kansai, Japan

The Mingei (Japanese folk craft) movement (1928-1975) was a counter-industrial movement that appealed to past, preindustrial practices in order to preserve traditional Japanese folk crafts. To its philosopher, Yanagi Muneyoshi (1889-1961), folk crafts embodied aesthetic and moral values. The Mingei philosophy defined by Yanagi and others referred to an understanding of preindustrial practices in order to set a standard of beauty for folk crafts. This inevitably changed the tradition of pottery by creating a static and aestheticized notion of what previously had been a fluid and functional approach. Since the advent of the Mingei movement, crafts conformed to Mingei standards and society viewed folk crafts as art, thus increasing their value. Although the Mingei movement has passed, I argue that the traditions and values defined by Yanagi's philosophy have influenced contemporary handmade pottery in Japan today. I will use the results of a survey I conducted in the Kansai area of Japan in the summer of 2006 to compare the modern values that support the demand for handmade pottery, with the aesthetic and moral values of the Mingei movement. I will show that Mingei values have survived and support the production and consumption of handmade Japanese ceramics today.

BIOLOGICAL CHEMISTRY

Akiko Doi

Advisor: T. Glen Lawson

Mechanism of Encephalomyocarditis Virus Protein Concentration Regulation

Protein concentrations within a cell play a crucial role in cell function. We have studied the regulation of encephalomyocarditis virus (EMCV) 3C protease and 3D RNA polymerase concentrations in vivo. These two proteins are crucial for viral polyprotein processing and RNA replication. The EMCV 3C protease is targeted for degradation by the ubiquitin/26S proteasome system. Previous studies have indicated that an EMCV 3C protease with no lysine residues can be ubiquitinated at its N-terminus in the presence of ubiquitin hydrolase inhibitors. This N-terminal ubiquitination event and its effects on the 3C protease stability were analyzed in detail. In vivo studies were also performed with mouse fibroblast cell line stably transfected with the genome encoding for the EMCV no lysine-3C protease. The results show that N-terminally conjugated ubiquitin is preferentially removed from the 3C protease by the ubiquitin hydrolase activity, and that

a mapped destruction signal is not needed for the N-terminal conjugation event to occur. The down-regulation of the EMCV 3D RNA polymerase synthesis was studied and preliminary results suggest that transcription can be attenuated at the 3C/3D junction region. These findings provide a foundation for additional experiments to prove or disprove the existence of a higher-order structure which regulates EMCV RNA synthesis.

Kay M. Gonsalves

Advisor: Rebecca J. Sommer

Investigation of a Putative Dioxin Response Element in the Promoter Region of the Human Beta-2 Adrenergic Receptor Gene

The halogenated aromatic hydrocarbons are a widely studied group of chemicals that are either commercially produced or found as trace contaminants in manufacturing. Through exposure, these chemicals cause a variety of species specific toxic responses including wasting, chloroacne, hepatotoxicity, and cardiovascular toxicity. The most potent of this group of chemicals is 2, 3, 7, 8, tetrachlorodibenzo-*p*-dioxin, commonly referred to as TCDD. TCDD acts through a signaling pathway through which a TCDD/protein complex binds to a core sequence of DNA, known as a dioxin response element (DRE), located in the promoter region of certain genes. The binding of this complex to a functional DRE alters the transcription of the respective gene, which accounts for TCDD's toxic responses. Since TCDD has been shown to cause cardiovascular toxicity, especially in chicken embryos, it is hypothesized that TCDD may affect the genes encoding the beta-adrenergic receptors (β -AR), an integral part of a signaling pathway that regulates cardiac function. Through the use of electromobility shift assays, it was demonstrated that the TCDD protein complex binds to a putative DRE in the promoter region of the human β_2 -AR gene. The effect that this interaction has upon gene transcription will be further investigated through luciferase assays.

Courtney M. O'Farrell

Advisor: Thomas J. Wenzel

Tetra-sulfonated Calix[4]resorcarenes as Chiral Solvating Agents in NMR Spectroscopy

A family of hydroxy-prolinylmethyl derivatives of a tetra-sulfonated calix [4] resorcarene (SCR) was synthesized. Their effectiveness as chiral nuclear magnetic resonance (NMR) solvating agents for water-soluble compounds with phenol, pyridyl, or naphthyl rings was determined and compared to that of the previously studied SCR-L-proline. These aromatic substrates form host-guest complexes with the SCR in water, likely promoted by hydrophobic effects. The aromatic resonances of the substrates show large upfield shifts and typically exhibit enantiomeric discrimination in the ^1H NMR

spectra. The upfield shifts are due to proton shielding from the aromatic rings of the SCR and the extent of enantiomeric discrimination depends on the interactions of the substrate substituent groups with the hydroxy-prolinylmethyl derivatives of the SCR. The amount of enantiomeric discrimination observed with the *cis*-4-hydroxy-L-proline, *cis*-4-hydroxy-D-proline, *trans*-4-hydroxy-L-proline, and *trans*-3-hydroxy-L-proline derivatives is often greater than with the L-proline derivatized SCR.

BIOLOGY

Lucas S. Feinberg

Advisor: William G. Ambrose, Jr.

The Effects of Baitworm Digging and Epibenthic Predation on the Growth and Survival of the Soft-Shelled Clams (*Mya arenaria*)

Commercial baitworm digging, the process of harvesting bloodworms (*Glycera dibranchiata*) from mud flats using a baitworm hoe, is one of the several disturbances that soft sediment systems endure. Recent research has shown that baitworm diggers in Maine completely dig some flats at a frequency of once a year. One of the largest concerns of baitworm digging is the interaction between digging and damage and/or mortality to non-target species, specifically the commercially important soft-shelled clam (*Mya arenaria*). The purpose of my thesis is to examine the effect of baitworm digging on the growth and survival of *M. arenaria* of juvenile, precommercial and commercial size clams, and to examine the interaction of epibenthic predation and digging on precommercial clams. A series of eight experiments, including one caging experiment, with dug and undug plots was set up at three field sites along the coast of Maine over the spring and summer of 2006. Clams were harvested in October and December resulting in a 15-20% return rate. Preliminary results suggest a difference in growth between treatment groups. Juvenile clams had an extremely low return rate (~4%), which can be attributed to the experimental methods used. These experiments show that baitworm digging does affect clam life history parameters and emphasizes the importance of developing experimental methods.

Ann E. Speers

Advisor: William G. Ambrose, Jr.

The Long- and Short-term Effects of Baitworm (*Glycera dibranchiata*) Digging on Carbon and Nitrogen Cycling in the Intertidal Flats of Maine, USA

Benthic marine invertebrates are commercially and recreationally harvested worldwide by overturning the top layer of intertidal sediment. Previous long-term research has indicated that this disturbance affects a broad range of community parameters. In Maine, baitworm (*Glycera dibranchiata*) digging is a largely unregulated \$6.1 million dollar industry. Only one flat in the state is closed to digging, yet no study has compared it to the numerous annually dug flats. Furthermore, little is known about digging's long- and short-term effects on remineralization. The purpose of my thesis is to describe baitworm digging's effects on the nutrient cycling, pigment distribution, and sediment characteristics in intertidal flats of Maine. Dug and undug sediment was compared after experimental digging on the protected flat and four historically dug flats in mid-coast Maine. Long- and short-term seasonal experiments (July - December 2006) examined sediment oxygen consumption, ammonium profiles, pigment distributions, and infaunal communities. Aerobic respiration significantly decreased by 25% two and five days after digging at the protected site, but was not affected at the historically dug sites. Changes in sediment ammonia profiles indicate the outward ammonia flux increases within the week following digging. Because they respond differently to digging than the protected flat, heavily dug flats may represent structurally and functionally altered ecosystems.

Christine L. Woll

Advisor: William G. Ambrose, Jr.

Effects of Baitworm (*Glycera dibranchiata*) Digging on Infaunal Community Structure on Two Intertidal Mudflats in Mid-Coast Maine

The harvest of the baitworm *Glycera dibranchiata* is a commercially important fishery in Maine. However, this fishery is currently unregulated, and little is known about the possible ecological changes caused by the upturn of sediment in the harvesting procedure. This study looks at these ecological changes, focusing primarily on the effects on the density and diversity of the macrofauna living in the sediment. Plots were established at two separate intertidal mudflats in mid-coast Maine, and professional diggers were hired to harvest *Glycera dibranchiata* from half of the plots. Digging took place during three separate seasons, and sediment samples were taken from at 0, 2, 4, and 8 weeks after digging each season. These sediment samples were then sieved for macrofauna, which was then identified to species. Initial results comparing density and diversity of infauna between dug and undug plots suggest that overall digging is having little to no effect on infaunal community structure, most likely because these sites have been dug historically. This study is intended to contribute to overall knowledge about the ecological effects of baitworm digging, which can hopefully be used in management decisions concerning this industry.

CHEMISTRY

Ann E. Lovely

Advisor: Thomas J. Wenzel

Chiral NMR Discrimination of Secondary Amines with (18-crown-6)-2, 3, 11, 12-Tetracarboxylic Acid

The effectiveness of optically pure (18-crown-6)-2, 3, 11, 12-tetracarboxylic acid as a chiral solvating agent (CSA) for secondary and tertiary amines in nuclear magnetic resonance (NMR) was determined. A large amount of enantiomeric discrimination was observed in the ^1H and ^{13}C NMR spectra of a wide variety of secondary amines including the piperidines, piperazines, pyrrolidines, and alkyl aryl amines. Discrimination results from the protonation of the secondary amines by one of the carboxylic acid groups of the crown ether to produce the corresponding ammonium and carboxylate ions. The secondary ammonium ion then forms two hydrogen bonds with the crown ether oxygen atoms, as well as an ion-pair with the carboxylate anion. Preliminary studies indicated some enantiomeric discrimination in the ^1H and ^{13}C NMR spectra of tertiary amines with optically pure (18-crown-6)-2, 3, 11, 12-tetracarboxylic acid although it was not as pronounced as that observed in the spectra of secondary amines.

ECONOMICS

Vaibhav Bajpai

Advisor: James W. Hughes

Assessing the Economic Impact of Immigration in Lewiston: Differentiating Rhetoric from Reality

The demographic and labor market dynamics of Lewiston, Maine, changed rapidly in 2001 when approximately 1,100 Somali secondary migrants decided to make Lewiston their home. Such an influx increased the city's population by almost 4 percent and changed its socioeconomic and cultural dynamics. This thesis examines two distinct economic consequences of the Somali influx:

- (1) The effects of the migration on wage levels and employment opportunities of Lewiston's native workers, and;
- (2) The effects of the migration on Lewiston's fiscal balances—the flows of public revenues and expenditures.

By treating this migration as a natural experiment, and using the difference-in-difference methodology, this thesis contributes to the discussion of two of the more contentious issues that were broached in Mayor Raymond's letter in 2002: that the migration depressed wages and employment opportunities in Lewiston and strained the municipal finances of the city. It also seeks to add a case study to the library of literature which deals with the labor market outcomes and fiscal effects of immigration.

Nikolay N. Kostov

Advisor: Carl R. Schwinn

An Empirical Study of Tobin's q and Investment: Evidence for the Oil and Gas Industry

This paper explores the empirical relationship between Tobin's q and corporate investment decisions. Nobel Prize winner James Tobin's original theory of investment stipulates that a ratio called q, calculated as the market value of a firm's assets divided by their replacement costs, should be the only factor predicting the current level of corporate investment. Many empirical studies have found q, also referred to as a proxy for the incentive to invest, to be a poor predictor of investment, why the results have been disappointing largely remains a puzzle. This study uses firm-level data to determine whether it is possible that q and investment might be simultaneously determined or whether they could be unrelated. This requires us to further determine what firm-level factors play a role in explaining the value of q. Since q is often used as a proxy for firm value, this study gives an indication of what factors matter in the determination of firm value.

Michal Pothuis

Advisor: Ahlam Fakhar

Measuring the Impact of Microcredit on the Empowerment of Women in Ethiopia

This thesis analyzes the impact of microfinancing on the lives of women in Ethiopia. Increasingly, microfinancing is strategy used to alleviate poverty around the globe. This is a result of the positive impact it has had concerning the economic and household empowerment of women, especially in developing countries, where the gender gap is wider. Despite all the assessment studies conducted, there is still no single established impact-measurement method. Moreover, a question remains concerning the outreach of these programs and who its actual beneficiaries are. I hypothesize that demographic variables such as age, education, and religion, as well as initial wealth and the actual location of the households, determine their participation in these institutions. To test this hypothesis I use data from a survey conducted in May 2006 in Ethiopia, focused on the

various spheres in which women play roles in economic development, particularly in microfinance. Through this research I will measure the impact of microfinancing in the economic and household empowerment of women, measured by their control over income and decision-making, respectively. As a follow-up I will report on the expected positive outcomes of women's empowerment on their well-being and on their children's well-being.

ENGLISH

Kimberly M. Bell

Advisor: Robert L. Farnsworth

More Inventiveness Than God: Sylvia Plath and The Poetics of Transformation

This thesis is an exploration of Sylvia Plath's poetic *technique*, in which I challenge the debilitating dependence on biography that her violent death and celebrity-status life brought to much of her analysis and criticism. Since her suicide in 1963 at the age of thirty-one, Plath's biography has been used as a means of martyring her for various causes, reducing her writing to a psychological purging of sorts, and conflating the circumstances surrounding her death with the narrative intentions of her poetry. This thesis investigates Plath's various uses of identity, as well as the various and particular identities (and/or voices, perspectives, and personas) themselves. Her categorization as a "confessional" poet often allows for a confusion of the speaker and the author that does not necessarily do the poem justice, either thematically or formally. Nevertheless, Plath does draw upon very real experiences and identities—her past, her gender, her era,—as a means of creating the voices with which her poems speak. Subsequently, this thesis strives to *temper* the degree to which biography affects the series of annotations it offers on her poetry, without extinguishing entirely the identity which *created* those found in her poems.

Lauren E. Jacobs

Advisor: Sylvia A. Federico

The English and French Versions of the Tristan and Isolde Legend: An Inclusive Approach to the Literary Community

There are three main eras of the Tristan and Isolde legend that will be the focus of this thesis: the early middle ages, the late middle ages, and the nineteenth century. The major texts of the earlier middle ages include Béroul's French "*Roman de Tristan*," Thomas of Britain's "*Tristan*," and Marie de France's "*Le Lai du Chevrefeuille*." The main text from the late middle ages is Sir Thomas Malory's "*Le Morte d'Arthur*." Finally, the

three main nineteenth century texts come from poems by Matthew Arnold, Alfred Lord Tennyson, and Algernon Charles Swinburne.

This thesis attempts to change the focus of Tristan scholarship from that of "original source study" to a study on the metamorphosis of Tristan sources. The "original" Tristan version will most likely never be known, though much energy has been spent in arguing about this non-extant original. I propose that a more productive approach to Tristan scholarship will include in-depth analysis of the versions of the legend that are extant and how they interact with the lives of their authors, the time periods in which they were written, and other sources. The Tristan legend is fluid; it moves in one direction but is always changing and always being influenced by its past form.

Michael B. Neville-O'Neill

Advisor: Carole Anne Taylor

The Epistemics of Narrative Modes and Dramatic Structure in *A Star Called Henry*

Roddy Doyle's fictions address the assumptions of dominant history that pretend to provide an accurate, comprehensive, and objective account of past events. Rather than a history of "truth" that assumes such accounts arise organically, without any artificial or external intervention, Doyle suggests alternative explanations of history, while revealing how dominant historical narrative is introduced and reinforced through political and material systems of power.

This thesis argues that Doyle challenges dominant historical narratives by drawing attention to the process of creating historical or literary narrative. In *A Star Called Henry* Henry Smart, Jr. serves as the omniscient narrator of his own life as well as an observer of important events in Irish history. Doyle shifts among narrative modes seamlessly, creating a text that is as much metahistory as it is metafiction.

It is the process of narrative, and Doyle's emphasis on this process, that challenges the reader's understanding of conventional "truth" and puts forward Doyle's use of an alternative account of the Irish Revolution, one which portrays dominant narratives as emerging from power structures that have an interest in establishing such narratives as "fact."

Tim R. Walsh

Advisor: Sanford A. Freeman

Desire, Myth, and Ritual in *The Rainbow*

Though *The Rainbow* is considered to be one of Lawrence's greatest works and perhaps his foremost masterpiece, it is little understood. His foes labeled him "savage," an exile of society staring back into the campfires of civilization. Lawrence, himself, the

consummate mythologizer, adopted this metaphor as his own and came to accept the notion of his “savage pilgrimage.” However, the metaphor betrays Lawrence and his readers, as its power is obscuring rather than explanatory. I wish to examine both the forces at work within *The Rainbow* and the subsequent critical response to it. My hypothesis is threefold: identity is a product of history; public and private spheres overlap one another and lack natural boundaries; and the demarcations imposed upon these spheres legislate both identity and meaning.

Rebecca L. Westlake

Advisor: Steven C. Dillon

Voicing and Silencing Death: The Unspeakable in DeLillo’s *Running Dog*, *The Names*, and *White Noise*

“Silence, exile, cunning, and so on...it’s my nature to keep quiet about most things. Even the things in my works.” – Don DeLillo

Don DeLillo’s writings often involve the veiling and unveiling of certain subjects. His works direct their multifarious gaze at Hitler, the Vietnam War, pornography, the Kennedy assassination, and the cultish movement following Mao Zedong. DeLillo’s unusual, labyrinthine narratives alternatively emphasize and erase these subjects. This thesis analyzes DeLillo’s address of the untellable through his purposeful omission of the Holocaust in *White Noise*, the intricate levels of secrecy that permeate the narrative and dialogue of *Running Dog*, and his portrayal of the ineffable nature of art and reality in *The Body Artist*.

ENVIRONMENTAL STUDIES

Allison E. Caine

Advisor: Jonathan E. Skinner and Loring M. Danforth

Shearing the Wool, Invoking the Inca: The International Vicuña Festival as Invented Tradition

Every year on June 24th, a large crowd gathers in a remote Andean village in southern Peru to participate in the *chaku*, a ceremony based on an Incan communal hunt. Forming a 2.5km human chain, they round up thousands of wild vicuña, a small undomesticated cousin to the llama. The animal is sheared and set free, its expensive wool sent to luxury retailers in Europe. This ceremony, and the three-day festival that precedes it, was created during the 1990s in response to the re-entry of the once

endangered animal's wool into the world market. As late as 2002, the creators of the festival began to incorporate cultural elements such as an elaborate *Llegada del Inca* (Arrival of the Inca) pageant performed by the local community members. Viewing these events as "invented traditions" places them within their sociopolitical context and examines the power relationships between the various creators and participants of the festival. I situate the International Vicuña Festival within the context of late twentieth-century Peruvian nationalism and "neo-Incaism," and view the motives of the creators as not only economic but tied to the promotion of a national cultural identity rooted in an Incan past.

Hannah R. Kusnitz

Advisor: Gerald F. Bigelow

Tilapia, It's What's for Dinner! The Impacts of an Invasive Fish on Rural Creole Culture in Crooked Tree Village, Belize

The rural village of Crooked Tree, Belize, is located within a lagoon, and most villagers regularly fish in the lagoon for subsistence and economic purposes. Throughout the village's 300-year history, fishing has been crucial in defining the culture of the Creole people who live there. However, in the past decade, the foreign fish tilapia has escaped from a nearby aquaculture facility and invaded the lagoon. As a result of this invasion, the indigenous fish species are hard to find, and tilapia is nearly all that villagers catch. Many changes in the local culture seem associated with this event. This thesis addresses how cultures adapt to changes in environmental conditions by examining the case study from Crooked Tree. Located within the field of cultural ecology, this thesis takes an event-focused approach to studying how human cultures respond to environmental changes. The character of cultural adaptation to events depends greatly on cultural and economic arrangements as well as the history of change in a culture. Because of economic generalization and flexibility, as well as a history of dealing with significant changes, Crooked Tree villagers quickly adapted to tilapia's invasion and integrated the fish into their rural Creole culture.

Lois A. St. Brice

Advisor: Holly A. Ewing

Chemical Assumptions in Input Designation and Parameter Determination in the DayCent-Chem Model

Ecosystem scientists use computer models to predict the effects of atmospheric deposition on terrestrial and aquatic ecosystems. Models require a set of unique input variables which are used to predict outputs, and the relationship between the two is characterized by various parameters. Many ecological models represent heterogeneous

ecosystems as homogeneous entities and so require that simplifying assumptions be made about the ecosystem being studied. Additionally, assumptions are made in determining the parameters which define the relationships between these inputs and outputs. The assumptions made about inputs and parameters affect the degree to which model predictions vary from observed values for variables in the field. Sensitivity analysis seeks to identify and quantify the effects that changes in input variables and model parameters have on model output. In this study, DayCent-Chem (a coupled, non-spatial biogeochemical model) was initialized for Hadlock Brook Watershed in Acadia National Park. Sensitivity analysis was used to explore the relationship between chemical assumptions made, both in the representation of model processes (through parameter determination) and in the designation of the model inputs, on the model's predictive capability.

GEOLOGY

Nathan W. Eichelberger

Advisor: J. Dykstra Eusden, Jr.

Structural Development of the Clarence-Elliott Wedge, Marlborough Fault Zone, New Zealand

Detailed structural mapping via DEM, aerial photography, and field observations was carried out within the Clarence – Elliott wedge (CEW), defined by the Clarence and Elliott dextral-strike slip reverse faults of the Marlborough Fault Zone. Two N-NE striking cross faults link the Clarence to the Elliott fault. The CEW cross faults are the Acheron fault in the west and Dillon fault in the east, both displaying sinistral normal or sinistral reverse motion. These two cross faults define the boundaries of three clockwise-rotated fault blocks within the CEW. Regionally, the CEW shows progressively variable degrees of uplift/thrusting and collapse/extension with low topographic relief in the west giving way to progressively higher relief in the east. Additional uplift is the result of strain partitioning on the regional level over the entire Marlborough Fault Zone. Recent evidence from the 1996 Arthur's Pass earthquake and resulting aftershocks suggests that block rotation along cross faults linking major faults plays a key factor in the southward development of the Marlborough Fault Zone. Evidence for similar rotational systems displaying strain partitioning can be seen throughout the Marlborough Fault Zone suggesting that they are a governing structural feature for the entire region.

Maria H. Jenness

Advisor: Dykstra J. Eusden, Jr.

Structural Controls of an Eruptive Fissure on the Reykjanes Peninsula, Southwest Iceland

The Reykjanes Peninsula in Southwest Iceland is an oblique segment of the mid-Atlantic ridge system. The rift segment is oriented 060° to 075° , approximately 30° oblique to the direction of absolute plate motion. The dominant tectonic structures on the peninsula are NE trending, en echelon, right-stepping eruptive fissures, and normal faults with a predominant strike 20° oblique to the rift axis. A new GIS-based map of the 2,000-year-old Sundhnukur crater row in the western part of the Reykjanes Peninsula shows 22 segments, varying in length and azimuth, with a mean direction of 033° . En echelon geometry of crater row segmentation is used to evaluate the influence of pre-existing fractures during magma propagation. The area in which the fissure is located is crossed by a number of closely spaced, N-S trending, right-handed, strike-slip faults. There are also numerous normal and oblique-slip faults in proximity to the fissure. In total 157 tectonic fractures are mapped, with a mean strike of 056° . The interaction of these faults with the fissure is significant in determining if magma used pre-existing fractures as pathways to the surface. Finally, variations in crater morphology are correlated to tectonic stresses and local tectonic fractures and bedrock geology.

Bennet H. Leon

Advisor: Michael J. Retelle

Recent Sedimentation Chronology of Linnévatnet, a High Arctic Proglacial Lake, Svalbard, Norway.

Due to the sensitivity of high latitude regions to global climate change, it is important to understand the role and response of the arctic system in past climatic events. Lacustrine sediments can provide an ideal archive of past environmental change preserved in structural, textural, and compositional variation. Linnévatnet, a large proglacial lake on Svalbard in the Norwegian High Arctic, contains a long record of annually laminated or varved sediments. This thesis develops a master chronology from the laminated sedimentation record of the last century. Sediment cores were retrieved during fieldwork conducted in 2006 from sites along a transect in the delta proximal basin of the lake. Using digital images of thin sections manufactured from these cores, boundaries between annual sediment couplets and intra-annual deposition laminae were identified. Laminae were visually correlated from proximal to distal coring sites in order to interpret sedimentation across the entire basin. A high resolution sedimentation chronology of Linnévatnet may be used to accurately reconstruct the climate of Svalbard during the Holocene.

HISTORY

Deirdre A. Goode

Advisor: Robert E. Bunselmeyer

Medicine and Imperial Rule in India During the Nineteenth Century

A view held by some historians is that medicine was an imperial tool in British India during the nineteenth century. However, a deeper examination of the time period reveals a dialogue between British and Indian medical systems that expanded medicinal practices. As much as the empire was changed by medicine's political agency, medicine itself was altered. Thus to call medicine a "tool of empire" – a term coined by Daniel Headrick – is not incorrect, but only considers onedimension and obfuscates the fuller understanding of its historical implications. Medicine as a tool of empire implies that it was solely used by British imperialists, when in reality, medicine was used on both sides of the imperial coin. Though it may not have been an equal exchange, it was an exchange nonetheless, one that altered both medicine and its role in imperialism. This thesis first establishes the medicinal practices of both Great Britain and India at the beginning of the century and then chronicles the relationship of these two medical systems and the resulting evolution of medicine in order to make the analysis multidimensional. The thesis discusses the cultural and social milieus in which medicine was practiced on either side of the imperial coin.

Mariah P. Pfeiffer

Advisor: Joseph M. Hall, Jr.

Visions and the Valley: A Reconstructed History of the Androscoggin River and its Industrial Communities

The story of the Androscoggin is, in a sense, not unique. As along other "industrial rivers," mill owners and valley residents extracted its power, degraded its water quality, and today, bitterly fight "environment vs. jobs" battles over its rightful use in the arc of industry's rise and decline. The stories of individuals, however, who live and work in the valley represent that which is unique to the river. These histories of lives and towns—rooted in the environmental, technological, and labor history of the valley—are scattered and complicated. In order to understand the communities of Lewiston, and Rumford, Maine, and Berlin, New Hampshire, we must reconstruct their histories. The lines of industrial progress and decline can be traced in mill records, corporate history, and vernacular pride. In my attempt to see through this dominant narrative, I integrate environmental history and local narratives with industrial accounts to form a fuller, reassembled version of the historical record. Neither glorifying Maine's natural beauty nor denouncing Maine's industry, I shed light on the concealed ways in which competing

demands for economic development and environmental protection seem at odds and highlight those voices that speak from the space in between.

Casey D. Pfitzner

Advisor: John R. Cole

Parliaments and Parlements: A Historical Analysis of Montesquieu's "On the Constitution of England"

In 1728 Charles-Louis de Secondat, Baron de La Brède et de Montesquieu, embarked from France on a three-year journey around Europe that included Italy, Hungary, Turkey, and Germany before an eighteen-month stay in England. Montesquieu drew on his travel experience to write his masterpiece, *The Spirit of the Laws*, in which he championed the British constitution. Oddly enough, the chapter devoted to "The Constitution of England" (11:6) manages to celebrate the constitution without so much as mentioning the Commons, Lords, or King. The author does not consider English constitutional law, as such, or history or politics; rather he implies by the chapter title that English institutions realize his liberal principles. The gap between the written word and reality originates in Montesquieu's perspective as a French *parlementaire*. Montesquieu was a *président à mortier* in the Parlement of Bordeaux and his conceptions of England were influenced by the French parliamentary experience under Louis XIV, the Regency, and Louis XV. This thesis analyzes Montesquieu's conception of British liberty in light of British history and the French parliamentary experience. The historical antecedents are used to inform a critical analysis of Montesquieu's "On the Constitution of England".

Benjamin W. Schrier

Advisor: Robert C. Williams

The Evolution of Heinrich von Treitschke's Political Thought: A Reinterpretation

The latent economic and military potential of the independent German states was finally realized in 1871, with Bismarck's Prussia at the helm. Complex markets and systems of production that had existed independently began to integrate. Production skyrocketed, and by the turn of the century, Germany's population had grown by approximately sixty percent. What had been a loose confederation of agricultural principalities was now a deeply patriotic and unified nation poised to challenge the traditional Great Powers of Europe for colonial and military supremacy throughout most of the world.

Any university library is replete with Great War literature describing Germany's role in the conflict, but there is a notable dearth of academic work that addresses a more fundamental question: What forces explain the development of German national identity

that made unification possible? This thesis examines the role of the historian Heinrich von Treitschke and the small-German historiographical movement in affecting these forces. To do so, this thesis examines the intellectual and biographical framework for von Treitschke's emotionally charged polemic writing and his near-mystical belief in Prussian fatalism. Von Treitschke and his colleagues altered the course of German history through a radical reinterpretation of their nation's historical tradition.

Robert C. Yamartino

Advisor: John R. Cole

Securing the Jacobite Threat: An Examination of the Rise and Fall of the Irish Penal Code

The second half of the eighteenth century was a period fraught with strife and debate regarding the rights and freedoms of men. Across Europe and the Americas, ideas of liberty and freedom were taking form and taking root. Historically oppressed by neighboring Britain, the island nation of Ireland was deeply affected by the events and ideas of the eighteenth century. For Ireland, the beginning of the eighteenth century brought with it a harsh set of laws known as the Penal Code. Nominally designed to cement a Protestant ascendancy in Ireland, the code barred Irish Catholics, the vast majority of the Irish population, from holding office, practicing law, or owning property. While it is undisputed that the codes crippled Ireland, the explanation for why they came about and why they were repealed is still disputed. This study examines the geopolitical conflict present at the inception of the penal codes and traces the arc of that conflict. Ultimately this study advocates that the Penal Code was less an attempt to cement the Irish Protestant ascendancy than an effort to secure Ireland from the external threat of French Catholic invasion.

INTERDISCIPLINARY STUDIES

Carine Warsawski

Advisor: Loring M. Danforth

Happy Birthday Herzl: The Construction of Civil Religion in Israel

In 2004 the Israeli parliament added a new holiday to the Jewish calendar called Herzl Day, commemorating Theodor Herzl (1860-1904), the acclaimed visionary of the State of Israel and founder of the modern Zionist movement. Herzl Day is a component of Israel's civil religion, a political and sociological phenomenon that nations and states use to integrate, legitimize, and mobilize their societies. This thesis explores how the holiday realizes its legislated goals and applies theories of civil religion, nationalism, and

collective identities in order to fully understand the cultural and educational implications of the holiday. My analysis is based on fieldwork in Israel that included personal interviews with scholars, educators, politicians, and the general public, and the study of cultural artifacts in museum collections and publications such as newspapers and government documents. My research examines the role of Herzl Day in response to the changing social discourse of Zionism in contemporary Israeli society.

MATHEMATICS

Abigail S. Dalton

Advisor: Caleb M. Shor

An Exploration of Elliptic Curve Cryptography

Cryptography is the science of sending secrets. Traditionally it was done with private keys, but, as technology evolved and messages needed to be sent to complete strangers, private keys became impractical. One of the earliest public key cryptosystems was the Diffie-Hellman system, which is based on the difficulty of solving the discrete logarithm problem in a finite field. About a decade after the introduction of the Diffie-Hellman system, cryptographers began using cryptosystems based on elliptic curves. Elliptic curve cryptography has been found to be easier to implement and more secure than the discrete logarithm based systems. Due to the small storage space necessary for elliptic curve cryptosystems, they are particularly useful in encrypting digital signatures. In this thesis I discuss these systems and the security they provide, implement them, and examine some of the methods used to crack the codes.

Stephen P. Tyler

Advisor: Pallavi Jayawant

It's a Small World After All: Modeling Real World Networks

Upon examination, it has been discovered that many real world networks (e.g., the World Wide Web, the social network of friendships) are in fact small-world networks. A small-world network is one in which every node can be reached from any other node by a relatively small number of connections. Understanding how these networks form and how they function would help us generate an accurate model for more complex real world networks. This thesis applies concepts from graph theory to explore the structure and properties of small-world networks. It then compares various efficiency metrics on randomly-generated model networks. Through analysis of these results we are able to

draw further conclusions about the attributes of small-world networks, as well as propose ways of classifying networks by their particular features.

MUSIC

Charles D. Hely

Advisor: William R. Matthews

Music Composition

This thesis includes the composition of a piece for flute, clarinet, violins, viola, cello, and bass. The music explores the roles of simple numeric ratios in rhythm, harmony, and melody. As another component of the thesis, I collaborated with a dance choreographer. This music, written for various instruments and electronic sounds, explores scale construction and production in attempt to create an environment that interacts with the dance.

Peter N. Strumolo

Advisor: Hiroya Miura

The Chiliad

My thesis is a composition written for alto saxophone, tenor saxophone, baritone saxophone, trumpet, clarinet, trombone, tuba, marimba, piano, and drums. The piece illustrates my own musical influences such as music from New Orleans and also works by minimalist composers. My composition focuses on various percussion techniques and instrumental writing through the manipulation of polyrhythmic layers. The piece will also be rehearsed and performed.

Samuel L. Welles

Advisor: Hiroya Miura

String Quartet in B Major

Music is a universal language that galvanizes human emotion in a unique way. This arrangement of sound and our perception of that arrangement give us vigor and anticipation for tomorrow. The way we perceive sound is through regular changes in air pressure. Since change implies a passage of time, our experience of music is unique within the realm of art. A composition must reflect that motion, with the “now” always passing

by, never lingering. As with all humankind, composers must wrestle to grasp that abstract concept of "now" as it is constantly slipping through our fingers. Music is the art form whose pursuit of beauty is the most ethereal, exactly as is the concept of beauty. Music keeps us all young and sharp in our memory of the past, imaginations for future possibilities, and the attempt at recognizing the present before it too has flown. The power of music is also intangible and despite our attempts to give it order and regulation, much of its might lies in its unbridled freedom and rebellion against our control. My thesis, a string quartet, explores the recognition of the beauty and power in a handful of sand, as it inexorably falls through our fingers.

NEUROSCIENCE

Melissa C. Chen

Advisor: John E. Kelsey

Effects of a Dopamine D₁ Antagonist and Caffeine A₁ Agonist, and Caffeine on L-DOPA- Induced Dyskinesia in a 6-OHDA Rat Model of Parkinson's Disease

Research suggests that activation of D₁ receptors may be responsible for L-DOPA-induced dyskinesia (LID) in patients with Parkinson's disease. Current findings also suggest that A_{2a} receptor antagonism might potentiate the therapeutic effects of L-DOPA without enhancing the dyskinesias. To test these hypotheses, a unilateral 6-OHDA lesion rat model was used to assess the effects of 0.1 mg/kg SCH-23390 (D₁ receptor antagonist) and 15 mg/kg caffeine (an adenosine A₁ and A_{2a} receptor antagonist). A high dose of L-DOPA (35 mg/kg) was used to produce LID in these animals as measured by the abnormal involuntary movement (AIM) scale. As expected, SCH-23390 reduced the total AIM scores. However, SCH-23390 also reduced the therapeutic effect of L-DOPA as measured in a forepaw stepping paradigm. While having no therapeutic effects by itself, the addition of caffeine to the combination of SCH-23390 and L-DOPA partially reversed the impairment in stepping produced by the D₁ antagonist without reversing the beneficial reduction of dyskinesias produced by the D₁ antagonist. These results suggest that the combination of caffeine and a D₁ antagonist may be particularly beneficial in the treatment of Parkinson's disease. Subsequent work will explore the role of the adenosine A₁ and A_{2a} receptors in this effect of caffeine.

PHILOSOPHY AND RELIGION

PHILOSOPHY

Ryan H. Creighton

Advisor: David R. Cummiskey

The Philosophy of the Geneva Conventions: Reevaluating the Roots of the Rules of War

Over the last century the United States, along with many other countries, has signed on to a series of documents that outline the conditions for treatment of civilians and prisoners of war in times of conflict. These documents, known as the Geneva Conventions, have become one of the most important attempts at forming international law in the history of the world. However, in recent years the inviolability of the Geneva Conventions has suffered as the global norm for conflict has shifted from an organized state versus state war to an unbalanced and amorphous series of guerrilla conflicts. The world today is very different from it was when the Conventions were first designed, and as a result even the basic applicability of the Geneva Conventions is being questioned.

Many of the arguments for and against the Geneva Conventions are deeply rooted in political philosophy. There are several different philosophical interpretations of the Conventions, ranging from a deontological appeal to human rights to a social contract to a utilitarian calculus of self-interest. The application and interpretation of these foundational arguments can shed a great deal of light on the value of the Conventions in modern times.

Casey B. Doyle

Advisor: Mark B. Okrent

The Phenomenology of Attunements: Rule-Following, Intentionality, and the Primacy of Action in Late Wittgenstein and Merleau-Ponty

In this essay I investigate the preconceptual underpinnings of self-understanding. The late Wittgenstein is often read as promoting a "Community View" of human mentality according to which there is no fact about us that constitutes understanding an order, gesture, or any other sign in the world. Accordingly, our life with language is simply a matter of doing what comes naturally to us, which amounts to socially conditioned dispositions for behavior. Against this view, I read Wittgenstein as clearing a middle path between Empiricism and Rationalism in which language is grounded on neither an interpretive act of reason nor brute causal forces, but action embedded in an already significant horizon of possibilities. The process of socialization is then seen not as mere conditioning, but the transformation of what Merleau-Ponty calls the "phenomenal field"

into a “form of life” within which an agent discovers himself and others “always already” playing socially instituted roles and exhibiting socially instituted psychological statuses, such as pain, fear, and joy. I then utilize Stanley Cavell’s notion of “acknowledgment” as a disposition-transcendent skill, built upon more basic preconceptual awareness, which makes possible human self-understanding, existential commitment, and existential modes of being such as shame, pride, grief, and hope.

Cassie M. Herbert

Advisor: David R. Cummiskey

Just Punishment in Unjust Times

Why is the state just in enacting punishment against an individual? The justification for the use of state coercion is traditionally either utility-based or retributive. I propose that any justification for punishment must be situated within a justification for political authority and a theory of justice. To do this, I explore the political theories of Bentham, Kant, and Rawls. In addition to providing unique and rich theories of justice, each of these theorists’ approach to punishment is exemplary of one of the traditional views: Bentham of utility-based; Kant and Rawls of similar, yet distinct, retributivism. I locate an appeal to the defense of individual liberty running through each of these theorists’ justification for punishment; punishment is just insofar as it is necessary to individual liberty. This prompts the question: Has the “criminal” freely violated the principles of justice? I find that each theory ultimately fails in its justification for punishment. I conclude by turning to theories of relational autonomy to construct a theory of just punishment. This theory will recognize the individual’s moral responsibility while acknowledging that every individual is situated within a social structure and system of relationships by which their ends and self are in large part constructed.

Michael B. Neville-O’Neill

Advisor: David R. Cummiskey

Global Poverty and Global Obligation: An Argument for Aid

It is an essential component of our commonsense morality that in certain situations we are obligated to provide assistance to other human beings. If we see an individual drowning, it is often our intuitive response to provide assistance. Yet, although we are aware of individuals in similar perilous situations throughout the world, we do not feel the same visceral sense of responsibility. If our intuitions and moral reasoning cause us to feel obligated to help individuals who are in close proximity to us, what are the implications of these feelings and judgments within a global context?

This thesis argues that individuals in well-off nations have a positive moral obligation to provide aid to those in developing nations. Four areas of analysis are considered. First, this thesis analyzes the range of responses individuals have when faced

with the problem of global poverty. In particular, arguments against providing aid are refuted. Second, this thesis explains theories of culpability and complicity as they apply to the problem of global poverty. Third, the strength and extent of these obligations to end global poverty are explored. These three areas are synthesized to provide a coherent account of a moral obligation to end global poverty.

POLITICS

Emily J. Bright

Advisor: William Corlett

I Feel, Therefore I Can Be Free: Emotional Expression, Political Deliberation, and Youth Dialogue

Whether criticizing deliberative democracy or advancing a politics of difference, scholars often argue that standards of neutrality and rational speech can render deliberation inaccessible to marginalized individuals. Emotional expression is a powerful tool for communicating the experience of injustice, oppression, and inequality. Including emotional expression in the content of political deliberation requires re-conceptualizing the normative standards of political “voice” and “identity.” Seeking venues where the pressure to discover common ground in deliberation is eased by the freedom to understand others from their own partial perspectives, my thesis proposes educational situations as possible spaces for such a pursuit. I begin my argument in feminist theory and the politics of difference. On this basis, I explore the commitment to neutrality and common ground in both liberal and critical models of deliberative democracy. I extend this discussion to traditional approaches in civics education and study the implications of liberal educational models for the development of political voice. In search of an alternative, I examine the uses of the emotional voice for political change, offer an account of a high school “controversial dialogue” program in Auburn, Maine, and sketch a new approach to youth deliberation through emotional expression.

Mary E. Bucci

Advisor: John R. Baughman

One Size Doesn't Fit All: The Public Opinion of Women in the 2000 and 2004 United States Presidential Elections

In the past, the public opinion of women has been studied only in comparison to men. This project moves beyond the gender gap, and examines the public opinion of diverse groups of women. Specifically, I look at variation in opinion among women based on age, marital status, race, and workforce participation. I hypothesize that the

dimensions which distinguish the opinions of men and women in the gender gap literature are reflected in the differences among women as well. Upon closer examination of the dominant issues and strategies of the 2000 and 2004 campaigns, it is apparent that women were viewed as politically important. However, not all women were targeted equally, with preferences given to middle-class women with children. Media coverage and survey data from the National Annenberg Election Survey offer insight into what issues groups of women thought was the most important and how campaigns responded.

Benjamin W. Chin

Advisor: William Corlett

Hope

Many argue that intellectuals have great cause for concern. With few of us obvious revolutionaries, we live in a world within a world: a world of privilege within a world of tremendous injustice, a world of the mundane within a world of the cataclysmic. Yet this view makes assumptions about what it is to be an intellectual, about the nature of the world and the academy, justice and injustice, what qualifies as mundane and what as cataclysmic. Working with C.S. Lewis, Iris Young, and Mohandas Gandhi, I explore how better ordering aspects—namely the rational and the emotional, curiosity and desire—of the very processes by which intellectuals make those assumptions suggests that we have certain moral-political responsibilities. In being responsible, we reconcile those worlds and find ways to live in both with a good conscience and as good scholars.

Nikolas D. Dettman

Advisor: Eric J. Hooglund

The Politics of the Iranian Constitution

The 1979 constitution of the Islamic Republic of Iran radically departed from classical Islamic notions of political authority by institutionalizing Ayatollah Khomeini's *velayat-e faqih* doctrine—essentially legitimating the rule of the clergy—as the basis for the new Iranian government. However, the concept was neither publicly debated in the initial stages of the revolution nor mentioned in the draft constitution. This thesis examines how the clergy, acting as a political interest group rather than a religious entity, transformed the secular draft constitution from one that separated the religious and political spheres and limited the clergy to an advisory role in state affairs to one in which the leading cleric would supervise the secular executive and legislative branches of government. This examination of the process through which *velayat-e faqih* was incorporated into the Iranian constitution and the debates and criticisms it faced in the process has not been undertaken and thus represents an original contribution to understanding how Ayatollah Khomeini and the IRP used nationalism, populism, and

religion as tools of mass social and political mobilization in support for their vision of a clerical Islamic state.

Jacob H. Johnston

Advisor: Olya Gayazova

U.S. Foreign Policy Practice and the Global Diffusion of Human Rights Norms

In the five years since the September 11 terrorist attacks, U.S. foreign policy makers have emphasized national security over human rights. This emphasis was not the inevitable result of the events of 9/11; rather, it was the product of the interpretation of those events by the Bush administration. My thesis assesses the relationship between this interpretation of the 9/11 attacks, which has come to be known as the Bush Doctrine, and the scope of the global diffusion of human rights norms. I evaluate the diffusion of human rights norms in non-Western societies by analyzing the degree of legitimacy of those norms in the eyes of non-Western elites. I do so using two case studies: Uzbekistan and Indonesia. Both Uzbekistan and Indonesia have a history of human rights violations, and both states are at least nominal allies in the American "war on terror." Since September 11, U.S. military and economic aid policies and the rhetoric of U.S. policy makers have favored Tashkent and Jakarta despite their neglect of human rights. In so doing the United States has undermined the legitimacy, and therefore the diffusion, of human rights norms in Uzbekistan and Indonesia.

Jaleh A. Taheri

Advisor: Eric J. Hooglund

Women in Iran: A Source of Strength and Resistance in Islamic Republic

This thesis investigates the role of women in Iran's political and economic development in accordance with the theories of feminist scholars such as Chandra Mohanty (*Feminism without Borders*, 2003) and Gayatri Spivak ("Can the Subaltern Speak?", 1988). It uses Iran as a case study to examine two distinct perspectives in the literature about women. One perspective, written by Iranian women expatriates living in Europe and North America, represents Iranian women since the revolution as repressed and living without hope of any progress in their situation. The other perspective, found in the literature by women who live in Iran or live outside of the country but return there frequently to conduct field research on diverse topics pertaining to the status of women, argues that Iranian women have achieved notable progress in areas such as education, employment, and gender rights during the past 25 years. The literature of the first perspective, uses no empirical data but rather relies on essentialist interpretations of Islam to advance its arguments about the repression of women. Which of these two groups of women have the most credible authority to represent the status of Iranian women; those

who have not been to Iran for over 20 years or those living and working in Iran and are asserting the right to speak on their own behalf? This question goes to the essence of what Spivak argues in her writings about the "voice" of the subaltern. Based on the literature review and the findings from my own interviews with women in Iran, I argue that the wealth of empirical data available in Iran about women's political and economic situation demonstrates that the voices of subaltern women provide a much more realistic representation than does the literature of expatriate scholars, who tend to relay on misconceptions and stereotypes.

PSYCHOLOGY

Kathryn M. Doherty

Advisor: Kathryn G. Low

The Effects of a Web-Based Intervention on College Students' Knowledge of Human Papillomavirus and Attitudes toward Vaccination

Research suggests that college-age individuals lack pertinent knowledge about human papillomavirus (HPV). Studies have demonstrated that educational interventions have increased knowledge of HPV in this age group, but there are no extant studies exploring the effects of an intervention on attitudes toward being vaccinated. The current study attempts to determine whether a brief Web-based educational intervention can alter college students' knowledge of HPV and attitudes toward being vaccinated. There were approximately 100 participants in the study. One half of the participants were randomized to a Web-based, self-administered intervention and completed baseline and follow-up surveys, while the other half of the participants served as the control group and completed the two surveys without participating in the intervention. Preliminary findings indicate improvement in levels of knowledge of HPV and possible attitude changes toward vaccination, as a result of the intervention. Results also indicate possible gender differences in the effects of the intervention on levels of knowledge.

Ryan J. Griffin

Advisor: Nancy S. Koven

The Effect of Priming on Impulsivity: Implications of Stereotype Threat

Response inhibition refers to the ability to suppress behaviors when they are inappropriate. While response inhibition is significantly impaired in clinical conditions such as ADHD, bipolar disorder, and OCD, this skill varies considerably across non-pathological individuals. This project examines the role of priming stimuli in response

inhibition, specifically how presentation of supraliminal and subliminal stimuli can affect unconscious memories such that behaviors and cognitions change as a result. Priming appears to be a ubiquitous phenomenon in that it is known to affect aspects of social cognition and intellectual performance, but the effect of priming on response inhibition in particular remains unclear. In this study, healthy college students were randomly assigned to one of three lexical priming conditions: primes that were hypothesized to increase response inhibition (e.g. "focus"), primes hypothesized to decrease response inhibition (e.g. "error") and neutral primes (e.g. "secretary"). A neuropsychological measure of sustained attention and response inhibition was utilized to examine relative changes that may have resulted from the primes. The implications of this study could mean that cues in a person's environment affect one's ability to suppress inappropriate behaviors, which is of particular interest to those who work with individuals diagnosed with ADHD, bipolar, or OCD.

Jenny E. Sadler

Advisor: Georgia N. Nigro

Communicating with Adults with Intellectual Disabilities

This service-learning thesis involved a partnership with the Social Learning Center, a community center for adults with severe intellectual disabilities in Lewiston, Maine. I created two projects to find new ways for adults with intellectual disabilities to communicate with the wider community. In the first study, I used a multiple baseline design to assess the effects of a computer-based language learning program for four adults with intellectual disabilities. Participants used the Rosetta Stone computer program for twenty minutes twice per week for between one and four weeks. I used an independent reading measure to assess baseline ability for each participant, as well as to monitor ability throughout the treatment condition. In the second study, participants created a Photovoice project. Seven participants took digital photographs and discussed the meaning of their photographs with the researcher. Field notes were content analyzed for recurring themes. I discuss the findings of both projects in terms of the literature regarding intellectual disability and current alternative modes of communication.

Leonard C. White

Advisor: Helen C. Boucher

Place and Identity: How We Respond to Threats to Place-Related Social Identity

This study examines how threats to place-related social identity (PRSI) impact environmental attitudes, perceptions, and behaviors. Participants were 151 Bates students and 105 community members. A 2 (high PRSI vs. low PRSI) x 2 (threat vs. status quo) x 2 (ingroup vs. outgroup) ANOVA generally confirmed the hypothesis that

participants with high Maine PRSI would respond to threats to the Maine coast in the same way they might respond to threats to a social group (e.g., expressed more concern for the area, expressed more willingness to pay [WTP] for protection of the area). While WTP has traditionally been used to determine a good's economic value, it is used here to measure attitudes. Implications for both the PRSI and WTP literature as well as society at large are discussed.

Emily L. Williams

Advisor: Kathryn G. Low

Vaginal Birth or Cesarean Section? Age and Gender Effects

The rate of delivery by Cesarean section has increased dramatically in the United States over the past 30 years. The present study explored the perspectives of women and men in order to understand their attitudes and knowledge about c-sections, and how those factors might differ depending on age. This study also examined decisions to deliver by Cesarean section to evaluate common reasons for the procedure. A questionnaire including demographics, birth scenarios, measures of attitude and knowledge, and questions about the decision making process was administered online to 79 men and 286 women from the New England area. Analysis revealed differences in opinion and knowledge depending on age group and gender, with younger participants and male participants choosing more c-sections than their counterparts. Content analysis of open ended responses within the survey showed that participants in this study viewed Cesarean sections as a last resort, and that birth should proceed naturally unless a medical emergency arises. Therefore although the Cesarean section rate is very high, most participants do not seem to favor this method over a natural delivery.

ROMANCE LANGUAGES AND LITERATURES

FRENCH

Meghan E. Getz

Advisor: Mary Rice-DeFosse

Le Pèlerin et le Pèlerinage dans la Littérature Française du Moyen-âge

My thesis is a study of the figure of the pilgrim and the pilgrimage in medieval French literature. After an introduction on the historical figure of the pilgrim in the Middle Ages, I plan to study the literary figure through various textual examples. These texts include *Le Roman de Renart*, *La Fille du comte de Pointieu*, *Le Pèlerinage de*

Charlemagne, Tristan et Iseult, Le conte du Graal and *Le Jeu de la feueillée*. Although I treat each medieval text individually, by concentrating primarily on *Le Roman de Renart, La Fille du comte de Pointieu, and Le Pèlerinage de Charlemagne* in my three main chapters, I extract the human element of each pilgrim figure, thereby separating him or her in a sense from the stereotypic historical figure as presented in the introduction. To do this, I examine the personal motivation, voyage and outcome of each pilgrimage. The significance in doing so is that the literary figure, as presented to the medieval public in the literature of the time, is often much more complex than the historical model with which we are presented today. I analyze these similarities and differences to present a conclusion concerning the true medieval pilgrim – the human with their own personal motivations, fears, frustrations and triumphs – and what they meant to medieval French society.

Catherine L. Zimmermann

Advisor : Mary Rice-Defosse

Les Franco-Américains de Lewiston, Maine: Une Exploration de l'Enracinement d'une Culture

My thesis seeks to provide a better understanding of the Franco-American population in Lewiston, Maine, by examining its connection to cultural heritage. In particular, I explore past and present uses of the French language, francophone literature, and regional culture in the local schools to investigate its connection to “*enracinement*,” which I define as the relationship of a people to its linguistic and cultural roots. My approach includes the use of academic sources and interviews with educators, students, and community members to learn more about their experiences. I assess Franco-Americans’ cultural awareness of themselves and their future to provide a greater understanding of the evolution of cultural preservation.

SPANISH

Monique J. Brown

Advisor: Francisca López

Filosofia y Religion en Juan Ramón Jiménez

The poetry of Juan Ramón Jiménez has played an important role in Spanish literature and culture, not only in his native country of Spain but also in Latin America. His work was written during a tumultuous time in Spain and during a time of recovery in Latin America, where he spent the latter part of his life. This thesis analyzes the impact of his life experiences on his writing, focusing on the evolution of his philosophical and

religious ideas. Some of the prominent themes seen in his work, reflect his close relationship and connection with some of the writers of “The Generation of 1898,” even though most critics see him as an outsider to this group of writers. Other themes, however, reflect other influences. Throughout his poetry, a preoccupation with a wide range of philosophical and religious ideas is evident. In this thesis, I explore Juan Ramón’s earlier concern with philosophy and his almost exclusive focus on religion in his final book, and the connection of this thematic evolution with the sociohistorical contexts of Spain and Latin America in which his poetry was written.

THEATER AND RHETORIC

RHETORIC

Ava M. Bessel

Advisor: Stephanie Kelley-Romano

The Power of the Picture: Visual Rhetoric and People for the Ethical Treatment of Animals

While visual arguments are a vital component of the public sphere, they are often overlooked or underexamined by scholars. This thesis explores visual rhetoric through an examination of the "Holocaust on Your Plate" campaign launched by People for the Ethical Treatment of Animals (PETA) in 2003. Using Kevin DeLuca’s theory of “image events” to explore the many functions that the images of “Holocaust on Your Plate” serve for the animal rights movement and society, this thesis advances a critical framework for visual argument that considers both the formal and functional components of visuals. This critical framework allows us to better understand the dominant position that visuals play in public discourse.

Rebecca M. Kilborne

Advisor: Robert Bryan Brito

“The Last Best Hope”: An Examination of Presidential Apocalyptic Rhetoric

As we stand at the dawn of a new millennium, we are surrounded by echoes of an old story: that of the apocalypse. The story is everywhere: in the debate over nuclear arms, in the panic over global warming, in the mouth of the President of the United States as he speaks of a terrible “axis of evil” bent on global destruction. George W. Bush has been widely criticized for developing an apocalyptic rhetoric in his political speeches. But is this apocalyptic style unprecedented for an American president? Considering that the

story of the apocalypse provided an integral piece in the initial rhetorical construction of America, it seems unlikely. This thesis argues that the apocalypse is a reoccurring theme in American presidential rhetoric and aims at locating and understanding those moments in American history when there has existed a presidential apocalypse. By combining recent advances in narrative theory with those made in apocalyptic genre theory, the thesis elucidates the exigencies that give rise to such a discourse as well as its effects on the American public. I argue that presidential apocalypses develop during times of social redefinition when the nation faces a particular kind of crisis: a crisis of identity. In so doing, this thesis adds to the growing genre of presidential rhetorical theory while providing insight into the way that the apocalyptic narrative continues to assert its influence.

SOCIOLOGY

Kristin N. Barber

Advisor: Francesco G. Duina

The Politics of Contradiction: Reforming U.S. Immigration Policy in a Globalized World

The structure of the U.S. nation-state is layered with ambiguities that allow for different interpretation of policy. The decentralized structure experiences continuous transfer of powers among the federal and state government as well as private actors. The pressures of globalization and immigration have further challenged the cohesiveness of the nation-state. This thesis examines these pressures in the context of Mexican immigration and federal policy. In particular it asks a number of related questions: How do federal policy-makers understand the current wave of Mexican immigration, especially with regard to ideas of citizenship, the nation and civic membership? How are their immigration policies shaping the nation-state in the global community? To answer these questions the thesis closely examines legislations from 1917 to 1960. It then closely examines the legislation of 1960 to the 2000s, focusing on the current policy debate in the 109th Congress. The potential outcomes of this debate are leaning towards two different policy positions that will arguably redefine the nation and citizenship as well as change the role of the United States in the global community.

Adrian J. Cohen

Advisor: Emily W. Kane

Revaluing Motherhood: How Parents as Scholars Participants View Education, Work and Family

There has been much research regarding the American welfare state and the reform enacted to it in 1996. One theme within this literature has been the class-based de-valuing of care-work that many argue accompanied the 1996 welfare reform. More specifically, by explicitly intending to “enforce the work ethic” for recipients of public assistance, by far most of whom are female, one implication is that being a mother is not work. This thesis examines the notion of motherhood as work among participants in the Parents as Scholars program. Parents as Scholars is a state-wide program in Maine that allows recipients of Temporary Assistance to Needy Families (TANF) to attend institutions of higher education while receiving benefits. This thesis presents the results of qualitative interviews with current and past Parents as Scholars participants about how they perceive the value of work, education, and motherhood. The intended focus of the project is to find out how these women understand their role as “worker” and their role as mother in light of their pursuit of higher education.

Bridget E. Harr

Advisor: Emily W. Kane and Sue E. Houchins

Race, Intersectionality, and Queer Student Organizations: Assessing the Utilization of Queer Politics

Many studies have addressed the exclusion of women of color from women’s movements, highlighting how this movement became the default term for referencing solely the struggle of equal rights for white women (Zajicek 2003). Similarly, there are experiences of exclusion among queer people of color in queer social movements, and I am interested in the level of awareness among white queer people, as to the degree, causes, and maintenance of that exclusion (Conerly 1996; Seidman 1994). Particularly of use within this analysis is queer theory, in terms of its focus on the deconstruction of identity categories, and the destabilization of the notion that a single identity may capture all of the experiences accompanying an identity, without consideration of intersectionality and the ways in which social categories are interrelated. Narrowing my research to focus on queer college students involved in queer student organizations, with involvement in a queer campus organization reflective of involvement in a queer social movement, I am investigating the ideologies employed by these organizations in regard to intersectionality, and the salience of divergent category memberships in the politics and framing of these organizations’ goals. Specifically, how do white queer college students think about race, in terms of its salience within queer student organizations’ movement goals?

Kelly M. Turpin

Advisor: Heidi T. Chirayath

What's Love Got to Do With It?: An Examination of Gender, Sexuality, Class, and Ethnicity in Harlequin Romance Novels and How Readers Respond to These Images

This study analyzes representations of inequality within Harlequin Presents romance novels, and how audiences react to such representations. To conduct content analysis, I examined eight novels published in April 2006, coding for portrayals of gender, class, and ethnicity. Results include traditional and thematic portrayals of a wealthy, foreign, aggressive, and sometimes even predatory hero, rescuing a demure, sexually submissive heroine usually from England, who is often the most “white” woman in the entire novel. Contrasting images present an “other” woman who vies for the hero’s love and attention but always loses in the fight for love. This woman represents a gold-digging seductress, often of the same ethnicity of the hero, whose darker skin is no comparison to the heroine’s silky whiteness. To address audience reaction to these representations, I examined the responses of two focus groups—college women who read romance novels regularly and college women who have never read them before—in order to determine their opinions of individual characters, plots, and overall sense of romance, relating to themes coded in the first portion of the study. This determines how different types of women respond to instances of inequality presented to readers as “romantic.”

WOMEN AND GENDER STUDIES

Sara P. Culver

Advisor: Heather L. Lindkvist

Muslim Women in Central and Southern Maine: How Constructions of Identity and Femininity Impact Conceptions of Veiling

This thesis examines how Muslim women on Maine college campuses conceptualize femininity, beauty, and modesty, all of which are important to the construction of identity. It examines the extent to which clothing, specifically the veil, reinforces or challenges these notions. By conducting semi-structured interviews with Muslim college-aged women, I investigate how the veil symbolically represents identity and femininity. In order to evoke attitudes about the female body and conceptions of femininity, I also ask participants to examine two images and to describe their reaction to each. One image is of a veiled Muslim woman, and the other a non-Muslim woman taken from American popular culture. I apply a theoretical framework that encompasses symbolic interpretive anthropology, multiculturalism, feminism (Western and non-Western), and identity formation in order to analyze my research. Inquiry into the symbolic aspects of the veil is

necessary due to the vast implications this religious headgear has on the representations of Muslim women in the United States.