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* *Denotes a combined thesis*

** *Denotes a Junior student completing an Honors thesis*

ANTHROPOLOGY

Jesse M. Lewin

Advisor: Heather Lindkvist

Interactions Between Somali Secondary Migrants and Physicians in Lewiston, Maine: An Ethnographic Field Study in Refugee Health Care and Cultural Competency

This thesis will determine factors influencing the health care of Somali secondary migrants in Lewiston, Maine. It also documents the local Somali population's understanding of U.S. health care, and American physicians' understanding and interaction with this newly introduced ethnic group. Medical anthropologists have studied the physician-patient relationship in Western biomedicine extensively over the last two decades. Research has focused on the various hegemonic forces involved in shaping this encounter, and implicitly, the respective roles of the participants. These studies have demonstrated that certain cultural, linguistic, intercultural, and interactional elements influence the physician-patient relationship and have the potential to create difficulties in achieving accurate diagnosis and treatment. Such barriers to diagnosis and treatment may be exacerbated when the patient is an immigrant or refugee and the provider is ignorant about the patient's cultural background and health beliefs. This interaction warrants continued study given current demographic transformations in the United States, and locally with the influx of nearly 1,200 Somali secondary migrants. Using documentary research and semi-structured interviews with Somali secondary migrants and local physicians, this thesis unravels the interaction between Somali patients and Western-trained physicians in order to examine shortcomings in the present system and to promote increased communication and understanding.

Valerie Z. Wicks

Advisor: Loring M. Danforth

The Search for Authenticity: Cultural Tourism in Ghana

This thesis explores themes of "authenticity" in Ghana's cultural tourism. I analyze symbolic relationships which shape the way tourists interpret the sights they visit. Drawing on the theoretical contributions of anthropologists including Clifford Geertz and Edward Said, I explore the way Ghanaians are symbolically "represented" for a tourist audience. I focus on two categories of tourist "texts," namely representations of Ghana from "outsiders" (in the form of travel guides and group tours), and representations of Ghana from Ghanaians themselves (primarily in the form of "cultural centers"). I examine historical and symbolic reasons for the presentation of a "static" and "traditional" view of Ghanaian culture, in which expectations and confirmations become a part of a dialectical process. "Models of" Ghanaian culture in tourist literature,

photographs, and websites create an image of Ghana, which then becomes a “model for” Ghana, as these projected traits are accepted as characteristics of Ghanaian culture.

BIOLOGICAL CHEMISTRY

Sarah J. Tolford

Advisor: Lee H. Abrahamsen

A Protein Purified from 24 *Dolichos lablab* Cultivar Samples Harvested From 13 Different Countries and Four Continents Shows Conservation of 5-brand FRIL

As the incidence of cancer increases, the need for new chemoprotective drugs to enhance the effectiveness of cancer treatments also rises. FRIL, a Flt3 receptor-interacting lectin, has the potential to be such an agent. Purified from hyacinth plant beans, FRIL has been shown to activate proliferation of certain cells and preserve quiescent primitive stem cells in culture for up to one month. Therefore, it shows numerous possible clinical applications for treating cancer and enhancing organ and stem cell transplantation. In order to gain FDA approval for this lectin to be used as a clinical drug in humans, the active components of FRIL must be identified and purified. This study identifies FRIL as a conserved lectin found in twenty-four different *Dolichos lablab* cultivars grown in various countries worldwide. Samples from each related cultivar are purified using an affinity column and exhibit five bands using SDS-PAGE analysis. These bands are uniform in all cultivars and range from 10-22 kDa. Beans from different geographic regions produce different amounts of FRIL when normalized to bean weight. These results suggest there is structural homology in FRIL produced by hyacinth beans, a crucial finding for the next stage of drug development.

BIOLOGY

Daniel W. Robarts

Advisor: Cheryl M. McCormick

Increased Locomotor Activity in Response to Nicotine and Amphetamine in Adulthood After Adolescent Stress in Female but not Male Rats

During specific, critical periods of brain development, environmental factors can cause changes. Stress during prenatal and neonatal stages of life has been shown to create long-term physical and behavioral changes in rats, but until recently the effect on adolescents has not been considered. Some neural circuitry changed by stress also mediates the effects of

psychostimulant drugs like nicotine, amphetamine, and cocaine. Nicotine causes a variety of health problems and could lead to the abuse of other substances, including amphetamine. To examine the long-term effects of adolescent stress, we stressed adolescent rats and later tested their adult behavioral responses to nicotine and amphetamine. Findings suggest a general trend for stressed females to show greater locomotor activity in response to nicotine than control females, whereas stressed and control males did not differ. There was an interaction between sex of the animal and stress in the response to amphetamine, with significant sex difference observed in stressed rats and not in control rats. Stressed males tended to be less active than control males, and stressed females tended to be more active than control females. These findings suggest neuronal changes occur in the brain's reward pathway during stress, altering later reactions to drugs like amphetamine.

ECONOMICS

Edwin P. Amonoo

Advisor: Michael J. Oliver

Regional Financial Emporiums (RFEs) and Investor Protection in Africa

This thesis investigates the relative presence and enforcement of a specific bundle of investor rights in selected security markets in Africa. Analysis furthers the discussion of whether Regional Financial Emporiums (RFEs)— financial markets whose participants are not necessarily host country citizens— could promote capital mobilization and increase the access of firms to working capital. It investigates possible investor preconditions for participation by statistically examining relative shareholder, creditor protection, and enforcement measures. It examines whether the hypothesized positive relationship among the presence and enforcement of investor rights, financial market size, and activity holds for a sample of countries of different legal origins. It investigates the robustness of this relationship by using instrumental variables.

Joanna W. Mak

Advisor: Michael P. Murray

Exploring Compensation in China: What is the Impact of the 1993 National Wage Reform Policy on Urban and Migrant Workers?

This study explores China's migrant and urban workers' compensation (wages, bonuses, and subsidies). Compensation affects firms' efficiency and allocation of resources, along with workers' well-being and incentives to produce. Little research exists on the division of compensation into wage and non-wage (bonuses and subsidies) components. The 1999-2000

Urban Migrant Integration Project, which consisted of 1,450 migrants and 1,859 urban workers from 118 firms in six cities, provides data that contains information on non-wage compensation. Due to the National Wage Policy, I hypothesize that non-wage compensation is used to compensate the human capital differences that wages do not capture. From simple statistics, I find that the composition of workers' compensation differs between migrant and urban workers. Although the total compensation package still favors urban workers, and most researchers believe migrants have lower wages, this is actually not the case. Instead, migrant workers have higher wages but lower non-wage compensation. I rely on a multiple regression analysis to ask whether firms use non-wage compensation to circumvent the National Wage Policy. I find that while wage compensation does not differ by level of education, non-wage compensation does differ.

Timothy B. Miller

Advisor: Michael J. Oliver

The End of Bretton Woods: The British Abandonment of Fixed Exchange Rates

This thesis traces problems the British government had in maintaining a fixed exchange rate between 1964 and 1972, and decisions that led to the floating of the pound in 1972. Analysis of recently declassified documents from Her Majesty's Treasury, the Bank of England, and the British Prime Minister's Cabinet has allowed me to uncover top secret operations that preceded critical events in economic history from 1964 to 1972. This thesis investigates the struggle to keep the pound sterling at an exchange rate of \$2.80 to £1. It also examines continuing problems in maintaining parity at \$2.40; closing of the London Gold Pool; French devaluation in August, 1969; German revaluation in May, 1969; and float in May, 1971. My study investigates British response to the suspension of convertibility of the dollar into gold in August, 1971, before considering the move to float in June, 1972. This study brings new perspective to the breakdown of the Bretton Woods international monetary system, and illuminates the origins of our present monetary system.

ENGLISH

Anne M. Conway

Advisor: Lillian R. Nayder

Are We Married to the End? A Study of Closure in *Jane Austen*

This critical study of Jane Austen's endings focuses on the first four major novels: *Sense and Sensibility*, *Pride and Prejudice*, *Emma*, and *Mansfield Park*. Readers and critics have often felt discouraged with the conclusions (particularly the obligatory marriages) of Austen's

novels, and my work attempts to discover why this is the case by studying closure in close relation to what precedes it. My work with Austen's endings both draws from and builds upon recent theory in novelistic closure, including the work of theorists Marianna Torgovnick and D.A. Miller. I examine four contemporary film adaptations of the novels to determine how Austen's endings have been revised and amended for a modern audience. Some attention is given to theories of adaptation, specifically as they address Austen's canonicity. Topics of interest include Austen's use of the courtship plot and its modification by filmmakers, redemption and punishment, the role of the courtship hero, and the status of female friendship in the novels and films.

Elizabeth M. Diamond

Advisor: Carole A. Taylor

John Berryman and the Poetics of the "Convulsed Cry"

Critical readings of the acclaimed American poet John Berryman have often grouped him with other "confessional" poets like Sylvia Plath, Delmore Schwartz, and Robert Lowell, in part because his poetry reflects a tumultuous life ending in a 1972 suicide. Yet reading his poetry primarily as an account of the lifelong struggle with alcoholism and depression does not necessarily address either its diversity or the complexity. This thesis analyzes how formal and structural aspects of Berryman's poetry relate to several of his sustained concerns: 1) the analogy between music and poetry in poems that make as frequent reference to Bach, Beethoven, Scarlatti, Schubert, and Mozart as to Renaissance or Romantic poets in the act of creating his own "counterpoint"; 2) the exercise of faith in a personally "fallen" world that has felt intimacy with several religious traditions; and 3) the abusive forms of social power (from the academy to the bombing of Cambodia) that provoke his most parodic, satiric work. Such analysis suggests that the poetics of the "convulsive cry" rely on Berryman's transformation of personal pain through his poet-scholar's breadth of allusion and disciplined adaptation of multiple traditions.

Ariel R. Hirshberg

Advisor: Lillian R. Nayder

Dickens and Anti-Semitism

This thesis considers *Oliver Twist* and *Our Mutual Friend*, as well as such texts as Shakespeare's *The Merchant of Venice* and Dickens' *A Child's History of England* and *Great Expectations*. Through stark contrast between good Christian Oliver Twist and horrible Jew Fagin, Dickens paints a bleak picture of London's criminal underworld. In doing so, we see his mixed feelings concerning Judaism and Jews and the separation of race and religion. Over the course of *Oliver Twist*, Dickens illustrates his confusion over and ultimate condemnation of Jews, despite

bestowing elements of comedy and paternal care on Fagin at times. Riah of *Our Mutual Friend* highlights Dickens's ignorance about the Jewish community. Dickens created the shallow, lifeless Riah in response to a complaint from a Jewish acquaintance that in Fagin he categorized all Jews as evil. Dickens's Jewish characters fit within the context of an overwhelmingly anti-Semitic Victorian society. *Oliver Twist* and *Our Mutual Friend* mark stages in the movement of Jews towards emancipation, and chronicle the obstacles they faced.

Elyssa A. Tardif

Advisor: Lillian R. Nayder

The Figure of the Prostitute in Nineteenth-Century English and French Fiction

This thesis examines the figure of the prostitute in nineteenth-century English and French fiction. Using various novels, including those by Balzac, Flaubert, Collins, and Dickens, I study societies' treatment of the prostitute. I explore her ultimate fate as opposed to the destinies of the other characters, and consider whether she can be reformed. In examining both English and French societies during this period, I consider the authors' motivation for depicting prostitutes as they do, as their historical status seldom corresponds to their fictional status. Why, when most women during this period became prostitutes out of economic necessity, were they represented by writers as having been seduced or having followed the inclination of their depraved nature?

ENVIRONMENTAL STUDIES

Julia D. Judson-Rea

Advisor: Peter J. Rogers

“The Greens Are Back In Town”: Reasons Behind the Success of the Tasmanian Greens

In 1972 the world's first green party, the United Tasmania Group, won 3.9% of the vote in a state election. Thirty years later, in a 2002 state election, the Tasmanian Greens won 18.1% of the vote — the highest ever by a green party. This thesis investigates three influences on the Tasmanian Greens and the cause of their recent electoral successes. These factors include the strong ethical and philosophical base established by the United Tasmania Group, the intra-party politics and leaders of the Tasmanian Greens, and the nature of political relationships between the Greens and other parties in the Tasmanian state and electoral systems. It also examines a shift in Tasmanian culture and an increase in post-material values resulting in a new consideration for environmental politics. The Tasmanian experience is critical to the global green movement, not only because it is the world's oldest green party, but because newly forming parties can look to the Tasmania Greens as a model for success.

Christopher A. Urban

Advisor: Carl B. Straub

Managing People and Wilderness in the Northeast Kingdom of Vermont: A Study of Constructive Conservation Policy

Throughout history, people have argued and fought over places in an effort to control and improve their own destinies. This would not occur if people did not care about the continuation of their sense of place. Over generational time, Vermont's Northeast Kingdom culture has evolved in connection with the land to form a unique niche-place. In 1999, a large timberland deal divided 133,000 acres of the Northeast Kingdom into three parcels. The most controversial parcel is the 22,000-acre West Mountain Wildlife Management Area, with an inner 12,500-acre ecological core reserve. This study examines the debate over who should manage West Mountain and what policies should guide management. The debate reveals cultural differences rooted in two competing senses of place, which can be generalized as the Traditionalist and the Environmentalist. I propose that such cultural differences can be reconciled by developing a common third management policy—one that seriously takes the shared values of present antagonists and yet moves beyond them, to encourage a new way of understanding the intricate interrelationships between people and their ecological environments.

FRENCH

Noah J. Sabich

Advisor: Richard C. Williamson

Des Voyages Extraordinaire

This thesis examines three works of Jules Verne, *Vingt mille lieues sous les mers*, *Michel Strogoff*, and *Voyage au centre de la terre*, to discover how his use of the *voyage initiatique* allows the main characters to mature after facing a series of physical and mental tests. I intend to reveal also how Jules Verne's works convey his political and personal convictions through the various landscapes, animals, and indications of space and time used throughout the three texts.

GEOLOGY

Jennifer E. Blum

Advisor: J. Dykstra Eusden

Fold Related Fractures in the Whiterock Limestone: Indicators of Regional Stress in Whiterock, North Canterbury, New Zealand

In North Canterbury, New Zealand, joints and faults are surface expressions of brittle deformation at a transpressional plate boundary. This thesis compares brittle structural data in the Miocene Whiterock limestone to an ideal model for fractures in flexural slip folds, to understand the mechanisms of fracturing and faulting. Methods used included air photo analysis, orienting fractures and faults, and observing crosscutting relationships. Following a synoptic analysis of the data, the field area was divided into four structural domains and data was evaluated using two fracture models. The relationship between predicted models and measured joint sets and relative age relationship indicate the folds and fractures were formed in the same deformational phase. The azimuth of maximum compression for these features, 125° , supports previous work in the region and indicates active folding. Thrust faults were associated with local stress caused by folding. Strike slip faults, the youngest structural feature, were associated with the Porters Pass-Amberley Fault Zone, a dextral shear zone striking ENE to WSW. Estimated direction of maximum compressive regional stress from the fault orientations is ESE to WSW. This newly forming shear zone marks the initiation of stress evolution and migration of the stress regime towards the southwest.

Anna A. Felton

Advisor: Beverly J. Johnson

Organic Carbon Cycling in Laminated Sediments from Coastal Lacustrine and Marine Environments, Eastern Canadian Arctic

The study of modern processes and past changes in polar regions is critical due to the close linkages of high latitude environments to the global climate system. The terrestrial organic carbon pool of the Arctic appears to have increased in recent times due to the CO_2 fertilization effect brought about by fossil fuels. Little is known about long-term changes in terrestrial carbon cycling under natural climate variations, particularly in coastal lakes and inlets which have undergone glacial-isostatic rebound. Recent developments in the use of lipid biomarkers in fossil organic matter provide a relatively new paleoenvironmental indicator. Undisturbed surface cores were recovered from basins on Cornwallis and Devon Island in the Canadian arctic archipelago. The core records, spanning approximately the last millennium, will allow evaluation of climatic and environmental influences on organic carbon deposition. Preliminary data from sediment cores suggest recent increases in both carbon deposition and primary productivity in

open marine basins relative to fully emergent land-locked lakes. The total lipid concentration of open marine basins is significantly higher than values from isolated lakes indicative of higher productivity in the oceans. Fatty acids from lake sediments are being analyzed to determine distinctive shifts in marine and terrestrial organic deposition.

Christopher H. Guiterman

Advisor: J. Dykstra Eusden

Strain Variations of a Hinge Parallel Lineation, Chandler Ridge, Mount Washington, New Hampshire

A pseudo-andalusite porphyroblast lineation (L1) in Devonian Littleton Formation schists of the Presidential Range, New Hampshire, has been examined in order to evaluate its strain history. L1 lineations are an early Acadian deformational (D1) structure because they are hinge parallel to F1 nappes and lie within the S1 axial plane schistosity. These lineations are enigmatic in terms of strain because they require hinge parallel extension during D1, which has historically been considered to be structurally problematic. L1 shows extreme variations in the degree of alignment at both outcrop and, more importantly, regional scales of observation. To evaluate the partitioning of L1 strain, lineations were measured in nineteen quadrants along a transect from the summit of Mount Washington 2 km down to tree line along Chandler Ridge. Additionally, the patterns of the deformed L1 lineation, as affected by F4 folding, were analyzed where a single S1 containing an L1 lineation was folded by D4. It has been deduced from the deformed lineation patterns that D4 deformation did not reorient L1 lineations. Variations in L1 alignment have been quantified down transect and divided into structural domains. These variations are constrained to different structural positions and influenced by rheology.

Kelley L. Kugel

Advisor: J. Dykstra Eusden

Late Acadian D4 Shortening, Chandler Ridge, Mt. Washington, New Hampshire

Late Acadian D4 deformation is ubiquitous in the alpine zone of the Presidential Range, New Hampshire. D4 is characterized by outcrop-scale, asymmetric, moderately inclined, flexural slip folds that deform bedding and schistosity. A weakly to strongly developed crenulation is also typical of D4 deformation. F4 fold strain partitioning was evaluated within the context of the lithologic setting and the structural setting of macroscopic D4 folding and earlier nappes. D4 fold wavelength, amplitude, and stratigraphic viscosity were measured on 335 mesoscopic folds from Mt. Washington down Chandler Ridge. This transect has near continuous exposures of the folded Devonian Littleton Formation. Cross-sections have been constructed and used to determine mesoscopic and macroscopic shortening during D4. Combining the shortening and strain estimates on the different scales of Late Acadian deformation will allow the amount of overall late Acadian

D4 deformation to be defined and may be used to refine models of Acadian plate tectonics. The Chandler Ridge transect was divided into five structural domains based on S4 axial plane orientations and F4 hinge lines. The D4 domains appear to change rapidly in the vicinity of the Chandler Ridge Dome, which is likely a D4 macroscopic structure.

Aaron E. Putnam

Advisor: Michael J. Retelle

Recent Sedimentation of a Transect of High Arctic Isolation Basins: Southern Queen Elizabeth Islands Archipelago, Nunavut, Canada

An observed twentieth-century global warming trend has spurred controversy concerning anthropogenic influence. Annually-laminated sediments preserved in high Arctic coastal lakes provide a high-resolution proxy for paleoenvironmental change, and may provide valuable information concerning this debate. Before deriving climate information from these sediments, however, it is important to understand the controls on the depositional processes. This study examines the recent sedimentation of five Arctic coastal lakes located on Devon, Cornwallis, and Bathurst Island in the Queen Elizabeth Islands Archipelago, Nunavut, Canada. The lakes are all coastal inlets (termed "isolation basins") that have been isolated from the sea due to post-glacial uplift. Anoxic conditions in saline bottom-waters contribute to the preservation of undisturbed annually-laminated sediments or varves. Varves, used together with radiometric dating, provide information about sedimentation rates, and allow paleoenvironmental interpretation. Surface cores recovered from each lake basin, sampling the most recent deposition, were analyzed for varve structure and thickness anomalies, percent grain size >63 μm anomalies, percent loss-on-ignition, and percent biogenic silica. Using these environmental indicators, correlations of $^{14}\text{C}/^{210}\text{Pb}$ -dated cores between lakes provide high-resolution reconstructions of recent climate history in the southern Queen Elizabeth Islands, and current natural sedimentation processes.

HISTORY

David A. Anixter

Advisor: John R. Cole

The Britishness of a "Jacobin": Mary Wollstonecraft and the Debate on the French Revolution

Mary Wollstonecraft, generally regarded as the matriarch of modern feminism, was in her own time equally famous (or infamous) as a political radical. Like most British radicals,

Wollstonecraft embraced the early stages of the French Revolution, and her enthusiasm led her to Paris in 1792. While in Paris, and in the midst of Robespierre's Terror, she began to write *An Historical and Moral View of the French Revolution*, a history of the first year of the Revolution. The title suggests certain didactic intentions, one of which was to supplant moralistic English criticisms with a broadly sympathetic conception of France in 1789. Yet if Wollstonecraft extolled the liberal achievements of 1789, she also experienced the apparent betrayal of this early promise. Wollstonecraft's historical evaluation of the Revolution— her approbation of 1789 and appalled rejection of the rest— is explained by her retention of an essentially conservative and English intellectual tradition, one that saw 1789 as deeply resonant of British liberalism, but recoiled from the violence of later years. Before dealing with *An Historical and Moral View*, this study traces Wollstonecraft's involvement with the French Revolution and examines the British political and ideological context from which sprung Wollstonecraft's ideas.

Lauren E. DuBois

Advisor: Hilmar L. Jensen, III

Becoming Muckrakers: The Lives and Work of Investigative Journalists in the Progressive Era

During the Progressive Era, a group of crusading journalists, labeled “muckrakers,” investigated and exposed corruption in all aspects of American society. A revolution in the magazine industry— aided by new technologies, a rising literacy rate, and the growth of a consumer culture that necessitated advertising— brought forth popular monthly magazines. Their lower prices and mass circulation spread the words of muckrakers across the nation. Magazines started to take the place of newspapers in shaping public opinion and helped unite the country by informing farmers in rural Nebraska about the plight of factory workers in New York and vice versa, and by assuring exploited people everywhere that they were not alone. Muckrakers made a decisive impact on the thinking of the country; they created a mode of criticism that grew from journalistic observation and social realism, which stressed truth over pleasantries. This thesis examines how the lives of specific muckrakers shaped their work. Were they reformers or simply reporters searching for the truth? It will focus on those considered, by historians, to be representative of the true spirit of muckraking: Lincoln Steffens, Ida Tarbell, Ray Stannard Baker, Charles Edward Russell, and Upton Sinclair.

Shelby V. Graham

Advisor: John R. Cole

The Many Deaths of a Queen: The Downfall and Destruction of Marie-Antoinette

In the spring of 1770, a fourteen-year-old Marie-Antoinette crossed the Rhine into France, where she was met by cheering crowds. People came to catch a glimpse of the girl who would

eventually become their queen, and they were charmed by her youth and freshness. Nineteen years later, Marie-Antoinette found herself surrounded by a different sort of crowd. Instead of applause, she heard insults and taunts from a mob that had marched to Versailles to demand the King come to Paris. A few became so enraged after having made the most violent threats against her life, they stormed the Queen's apartments. What had changed? How had the opinion of the people of France altered so drastically over the past few years? In this thesis, I explain the growing hatred of Queen Marie-Antoinette. I discuss the endemic hatred of Austrians among the French and the effect of the Franco-Austrian alliance on French public opinion. I focus on the Queen's lavish spending habits and bold fashions. Lastly, I discuss the factions present within the court that served to keep Marie-Antoinette unpopular in France.

Katherine E. Marshall

Advisor: Lillian Guerra

Power to the People: Youth Subversion and Revolutionary Change in Cuba, 1960s to the Present

This thesis examines the paradoxical means by which Cuban youth have protested and criticized the Cuban revolutionary government from within the Revolution. I assert that since 1959 the voices of individuals and small cohorts have been validated and empowered through the process of personally engaging the Revolution itself. This includes an analysis of two interrelated forms of youth expression: the appropriation of the officially marginalized Beatles in the 1970s and the use of artistic spaces as a means of broadening political boundaries during the 1980s and 1990s. In the early 1970s young people reacted to Sovietization by conceiving a Cuban revolution that invoked idealistic values derived from their understandings of the 1960s social movements in the United States and popular youth culture abroad. Ironically, young Cubans appropriated foreign symbols and deployed them as expression of their own "revolutionary" identity. By envisioning a revolution that differed from officially accepted norms, young people promoted social and ideological flexibility in Cuba.

Andrea S. Noyes

Advisor: Lillian Guerra

The Business Behind Bananas: Collective Identity and Conditional Inclusion in the Labor History of Ecuador's Banana Industry, 1922-2003

The inability of a developing country's working class to shape the voices necessary to advance their interests has created a growing disparity between the promise of export-led development and the reality of increasing poverty and declining political power. In Ecuador's efforts to follow a development model based on foreign standards of modernity, the country's twentieth-century labor history and interaction with the banana industry demonstrate that ideologies of exclusion

have proved critical to perpetuating existing systems of power. This thesis examines Ecuador's process of nation-building through the lens of racialized class struggles that shape the creation of a collective identity predicated upon conditional inclusion. Patterns of popular insurrection and elite repression have surfaced in waves throughout the last century, beginning with a massacre of strikers in November 1922. Particular focus on the print media coverage of the 1975 and 1977 General Strikes reveals the construction and co-optation of discourses that restricted popular membership in the nation's development. Government documents, newspaper articles, and interviews with agricultural workers and labor organizers reveal the persistence of these conditions in a nation struggling to define itself within an increasingly globalized context of trade and diplomacy.

Bradley D. Proctor

Advisor: Joseph M. Hall, Jr.

What Say Banjer? The Shared Black and White Banjo Traditions of the American South

This thesis examines the history of the banjo in the southern United States. Originating in Africa, the banjo was codified into its currently recognizable form by African slaves in the Americas during the seventeenth century. At some point in the eighteenth and nineteenth centuries, European-Americans in the southern United States began to play it as well, learning primarily through apprenticeship to slaves and free blacks. In the twentieth century, the blues developed out of African-American banjo tradition and bluegrass emerged out of the European-American banjo tradition. Though both are distinct musical forms, they share characteristics often ignored when studied separately. This thesis distills the defining characteristics of both traditions as a means of uncovering their similarities and differences in terms of playing technique, repertoire, and cultural significance. It utilizes commercial and archival recordings, instruction books, published primary source materials, and interviews. I argue that despite socially ingrained racism and substantial political barriers to white and black interaction, both black and white banjo traditions were defined by a sharing of culture between the two groups.

INTERDISCIPLINARY STUDIES

Laura M. Cody

Advisor: Elizabeth A. Eames

Health Report Card Approaches to Healthy Weight: The BMI Project at Riverside High School

Overweight and obese adolescents are a growing problem in the United States and around the world. Because excess weight has many health consequences and permanent weight loss is rarely successful, we increasingly turn to methods of prevention at younger ages. One such attempt has been a health report card sent to parents stating the child's body mass index. One school district in Maine has sent letters to parents with varying degrees of success. This thesis examines preparation of such intervention at the high school level, using in-depth interviews with school nurses and teachers, focus groups with parents and students, as well as participant observation of measurement in the school. It uncovers underlying concerns about measurement, reporting, and body mass index and recommends future steps for the schools in instituting health report-card-type interventions.

MATHEMATICS

Aimee L. Grimmelmann

Advisor: Meredith L. Greer

Mathematical Modeling of the Influenza Pandemic of 1918

The influenza pandemic of 1918 killed more than 500,000 people in the United States and infected millions more worldwide. Many different methods have been used to model epidemics throughout the years. In 1927, Kermack and McKendrick proposed a continuous time deterministic model called an *SIR* model to represent disease outbreaks. Their model examined the rates of change between the susceptible (*S*), infective (*I*), and removed (*R*) subgroups within a fixed population (*N*) using differential equations with constant infection and removal rates, β and α , respectively. In 1956, D.G. Kendall used an infection parameter $b(z)$, where b was a function of the number of individuals in the removed population, to find an exact solution for Kermack and McKendrick's model. Discrete time deterministic models are also used to model epidemics. In 1975, Spicer used this type of model to predict influenza's spread in England and Wales. My thesis compares these models using data from the Influenza Pandemic of 1918 in several populations.

Tory M. Peterson

Advisor: Bonnie J. Shulman

A New Twist: Different Models for the Tacoma Narrows Bridge Collapse

On November 7, 1940, the Tacoma Narrows Bridge began undergoing vertical oscillations in 40 mph winds. The motion eventually twisted, which led to the center span breaking apart and falling into the water. This thesis investigates different models for the collapse of the bridge, beginning with the phenomenon of resonance, then exploring the large amplitude oscillations that occur under certain initial conditions in nonlinear models. Many physics and mathematics texts continue to use the Tacoma Narrows Bridge disaster as the canonical example of resonance. While resonance may be qualitatively correct, the source of the periodic external forcing frequency that would produce this phenomenon has not been convincingly established. At the time of the collapse, engineers had to resort to linear models, because there was no technology available to solve nonlinear ones. Today's numerical solvers enable us to find numerical solutions and experiment with different parameters and initial conditions that may have influenced the bridge's actions. I experiment with both uncoupled (vertical and torsional motion are independent) and coupled nonlinear models, and investigate whether vertical motions can lead to torsional motions, to explain the unusual twisting that eventually led to the bridge's collapse.

MUSIC

Cass E. Panuska

Advisor: Rose A. Pruiksma

Sexuality, Gender, and Class in Mozart: An Exploration of Duets in *Le Nozze di Figaro*, *Don Giovanni*, and *Così fan Tutte*

This thesis examines relationships between various characters in three Mozart operas—*Le Nozze di Figaro*, *Don Giovanni*, and *Così fan Tutte*—through a close reading of duets from each. Although Mozart created the scores, he worked closely with librettist Lorenzo da Ponte, who wrote the texts. While studying the music and text, questions about sexuality, gender, class, and disguise emerge and overlap, creating a rich environment for musical and cultural analysis. Continuities and divergences within Mozart and da Ponte's collaboration create a fascinating inter-textual conversation and their prominent treatment of eighteenth-century gender relationships. In his duets, Mozart's rhythms, interwoven melodic lines, meters, and keys clarify similarities and differences not only among characters in one opera, but among characters in all three. While musicologists view Mozart's opera duets as a musical melding of two voices into one being, this thesis argues that Mozart's music in many of his duets develops characters' individuality—beyond the opera librettos—and offers insights into the various

gendered and class-laden dynamics as articulated through Mozart's musical choices. My thesis includes performances of several of these duets.

Michael B. Silvers

Advisor: Philip C. Carlsen

The Cantata do Cangaceiro: Lampião and the Redistribution of Wealth

This thesis includes the composition of a cantata in ten movements for choir and instrumental accompaniment. It centers on early twentieth-century Brazilian folk hero Lampião, who led a group of bandits around the rural Brazilian Northeast (also known as the *Sertão*). Infamous for robbing from the rich and giving to the poor, Lampião was often referred to as the "Brazilian Robin Hood." He quickly became a hero throughout the impoverished and drought ridden *Sertão*. My music paints a picture of this barren land, which has been compared to the American Southwest, where I was born and raised. It evokes the rhythms and sonorities of Brazilian Northeast music as a way of depicting the region. At the same time, it honors subsistence farmers like my first Brazilian host family, who struggle to survive but often seem to find happiness through their music. The text of the cantata comes from a piece of Brazilian folk literature (*literatura do cordel*) entitled *Vigulino Lampião: Grande Mito do Nordeste*. The cantata premiered April 4, 2004, in the Bates College Olin Concert Hall.

NEUROSCIENCE

Erin D. Gleason

Advisor: Cheryl M. McCormick

Nicotine Induced Fos Expression in the Brains of Adult Female Rats Stressed During Adolescence

In a previous study at Bates College, it was found that a chronic social and restraint stress regimen during the adolescent phase in rats produced long-lasting effects. Specifically, pubertally stressed female rats were found to be more sensitive to nicotine during adulthood, as measured by physical activity after nicotine administration. This study seeks to determine which brain areas are responsible for the long-term effects of pubertal stress on sensitivity to nicotine. Neural structures of interest include the anterior cingulate gyrus, nucleus accumbens, amygdala, septum, and the paraventricular nucleus of the hypothalamus, as they have been linked to both stress response and actions of nicotine. We analyzed neuron activation in these structures by staining for the Fos protein, transiently expressed after neuronal stimulation. We hypothesize that there will be differential activation in the pubertally stressed group in specific brain regions

when compared to the non-stressed controls. The larger implications of our results could aid in the understanding of how stress during human adolescence alters brain function into adulthood.

Sarah M. Gray

Advisor: John E. Kelsey

Bidirectional Locomotor Cross-Sensitization Between Sucrose and Amphetamine

The dopamine (DA) hypothesis of reward suggests that all substances that produce reward do so because they increase DA transmission. Consistent with this hypothesis, repeated administration of rewarding drugs, like amphetamine, progressively increases DA release and locomotion, and this effect cross-sensitizes to other related drugs like cocaine. If the DA hypothesis is correct, we might expect that sensitization to such drugs could cross-sensitize to real reward such as sucrose, and vice versa. This hypothesis receives support from studies suggesting comorbidity between eating disorders (especially bulimia and binge eating disorder) and drug addiction and also from results found in this communication. Experiment 1 shows that repeated injections of 3 mg/kg amphetamine subsequently increased the locomotor response to a small taste of sucrose, and Experiment 2 shows that repeated exposure to sucrose enhanced the subsequent locomotor response to 0.5 mg/kg amphetamine. In Experiment 3, I examine the effects of lesions of the basolateral amygdala, a structure implicated in both drug and food reward, on the capacity of repeated sucrose to enhance the locomotor response to amphetamine. Preliminary results of Experiment 3 suggest that lesions to the BLA enhance the cross-sensitization effect between sucrose and amphetamine.

Katherine J. Kopeikina

Advisor: Cheryl M. McCormick

Increased Locomotor Activity in Response to Nicotine and Amphetamine in Adulthood After Adolescent Stress in Female but not Male Rats

During specific, critical periods of brain development, environmental factors can cause changes. Stress during prenatal and neonatal stages of life has been shown to create long-term physical and behavioral changes in rats, but until recently the effect on adolescents has not been considered. Some neural circuitry changed by stress also mediates the effects of psychostimulant drugs like nicotine, amphetamine, and cocaine. Nicotine causes a variety of health problems and could lead to the abuse of other substances, including amphetamine. To examine the long-term effects of adolescent stress, we stressed adolescent rats and later tested their adult behavioral responses to nicotine and amphetamine. Findings suggest a general trend for stressed females to show greater locomotor activity in response to nicotine than control females, whereas stressed and control males did not differ. There was an interaction between sex of the animal and stress in the response to amphetamine, with significant sex difference

observed in stressed rats and not in control rats. Stressed males tended to be less active than control males, and stressed females tended to be more active than control females. These findings suggest neuronal changes occur in the brain's reward pathway during stress, altering later reactions to drugs like amphetamine.

Elizabeth S. Lewis

Advisor: Cheryl M. McCormick

Salivary Cortisol Levels are Correlated with Performance on a Prefrontal Cortex Task

Research investigating the impact of stress has focused on cognitive functions associated with the hippocampus, a brain structure sensitive to stress hormones. However, new findings implicate other brain regions. Recently, in the rhesus monkey brain (unlike the rat brain), stress hormone receptors have been shown to be relatively absent in the hippocampus, yet present in the prefrontal cortex. Therefore, early extrapolation from rat studies may have been misleading. This thesis elucidates the effect of the stress hormone cortisol on the prefrontal cortex by testing performance on a cognitive task associated with the prefrontal cortex. Participants were also tested on a cognitive task associated with the parietal cortex, a region without stress hormone receptors. Half of the eighty subjects were stressed prior to testing; the other half were not. The stressor consisted of performing rapid addition of numbers while being videotaped, a task known to elevate cortisol levels. Salivary cortisol levels were obtained several times throughout the session, measured using radioimmunoassay, and correlated with performance on each task to determine the relationship between stress, cortisol, and the frontal lobe. It was hypothesized that cortisol levels would correlate with performance on the frontal lobe task, but not on the non-frontal lobe task.

Emily S. Marsters

Advisor: Cheryl M. McCormick

Nicotine Induced Fos Expression in the Brains of Adult Female Rats Stressed During Adolescence

In a previous study at Bates College, it was found that a chronic social and restraint stress regimen during the adolescent phase in rats produced long-lasting effects. Specifically, pubertally stressed female rats were found to be more sensitive to nicotine during adulthood, as measured by physical activity after nicotine administration. This study seeks to determine which brain areas are responsible for the long-term effects of pubertal stress on sensitivity to nicotine. Neural structures of interest include the anterior cingulate gyrus, nucleus accumbens, amygdala, septum, and the paraventricular nucleus of the hypothalamus, as they have been linked to both stress response and actions of nicotine. We analyze neuron activation in these structures by

staining for the Fos protein, transiently expressed after neuronal stimulation. We hypothesize that there will be differential activation in the pubertally stressed group in specific brain regions when compared to the non-stressed controls. The larger implications of our results could aid in the understanding of how stress during human adolescence alters brain function into adulthood.

PHILOSOPHY

John N. Butos

Advisor: David R. Cummiskey

Consequentialist Libertarianism and American Health Care Reform

In the future, the United States' mounting health care costs will challenge current ideas about the government's role in the economy and as an agent for social justice. In examining the effects that further socialization will have on our current health care system, I draw on libertarian economists and ethicists to evaluate libertarianism as a viable economic and valid ethical option. In particular, I focus on the problems presented by a coinciding increase in the elderly population and in improvements in life-extending medical procedures. I attempt to clarify ethical issues surrounding the health care debate by clarifying the nature of health care as an economic good, and the proper role of the free market in justly distributing such a good.

Joseph G. Gracia

Advisor: David R. Cummiskey

The Price of Brilliance: An Ethical Analysis of Cognitive Enhancements

This thesis addresses ethical issues in the growing field of cognitive enhancements. The analysis first articulates current factors leading to predictions that cognitive enhancements will be the next big biomedical innovation. It then attempts to grapple with the likely ethical ramifications of neurological revolution. Through researching current scientific advances, a forecast is given as to the possible future of cognitive enhancements in American society. The purpose is to identify the promises and problems of technological advances that will enhance mental capacities. The focus is to separate the true ethical dilemmas from the unfounded fears of such enhancements. The main subjects dealt with in the neuroethical context are that of social stratification, distribution, human identity, and societal values. This thesis concludes that a cautious, well-regulated acceptance of cognitive enhancements will be both ethically permissible and valuable.

PHYSICS

Jeremy P. Brown

Advisor: Mark D. Semon

An Introduction to Bessel Functions via the Lengthening Pendulum

This thesis presents a self-contained introduction to Bessel functions. Although Bessel functions are used to describe many physical processes, they often are perceived as somewhat obscure. As a remedy to this issue, relationships between sinusoidal and Bessel functions are explored in two similar physical cases. I begin by using a series solution to find the motion of a simple pendulum, which in turn identifies the appropriate series as sine and cosine functions. The series are later used to derive various properties of these functions. The same method is used to find the motion of a pendulum whose length increases linearly in time. The solution is found to be a Bessel function. These series representations are used to derive properties of Bessel functions in exactly the same way properties of the sinusoidal were derived. By proceeding this way, similarities between Bessel and sinusoidal functions are emphasized, and some of the “mystique” of Bessel functions is dispelled. Finally, data taken from a lengthening pendulum is compared with predictions made from the Bessel function solutions to show the relationship between theory and experiment, and further confirm the existence and applicability of Bessel functions.

Jeffrey B. Levinson

Advisor: Mark D. Semon

New Variables for Quantum Interference

This thesis investigates two new dynamical variables for describing quantum interference: modular momentum and modular position. These variables were introduced in 1969, but have received little attention. The first part of the thesis reviews the theory of the double slit experiment, while the second part reviews the scalar Aharonov-Bohm effect and its experimental verification. Then modular momentum is introduced and shown to be the only variable known to elicit change in the effect. Other properties of modular momentum are derived and its physical significance is established. Modular position is then introduced and shown to commute with modular momentum, proving that certain functions of position can commute with certain functions of momentum. The thesis ends with a discussion of how modular variables might be used as the basis of a non-local theory of interactions describing quantum interference experiments. In this manner, the thesis develops a new dynamical formulation of the scalar Aharonov-Bohm effect using modular variables.

Anne S. Wrigley

Advisor: Mark D. Semon

Using Frequency-Resolved Optical Gating to Measure the Duration and Phase of Ultrashort Pulses

This thesis explains how to construct a diagnostic optical layout that measures the duration of a femtosecond optical pulse, and also gives information about its intensity and phase. It begins with a description of the theory behind the experimental setup, which uses the Frequency Resolved Optical Gating (FROG) technique, as well as second harmonic generation and other nonlinear effects within a dielectric crystal. Frequency resolution requires time-resolving spectral components of the laser pulse and calibrating the scales of a two-dimensional image of time delay versus frequency. In summary, I discuss how understanding the physical mechanism behind ultrashort pulse generation is useful in numerous applications.

POLITICAL SCIENCE

Maya Dutt

Advisor: Mark A. Kessler

Clients, Categories, and Critical Lawyering: Legal Boundaries in Gender-Based Asylum Law

This thesis explores the role lawyers have in transforming narratives of clients applying for asylum into the language of the law that places experience into predetermined categories. Focusing specifically on women fleeing gender-based persecution, it explores the way lawyers simultaneously utilize and challenge the boundaries of the law, how much of the client's story is told, and how adequately the law addresses the experiences of abused women. Critical theories of legal practice and dispute transformation, along with works in legal geography, provide the theoretical framework to investigate the power relationship between lawyers and clients, different methods of representation utilized by progressive lawyers, and the negotiation between lawyers and clients that produces legal arguments.

PSYCHOLOGY

Julia D. McQuade

Advisor: Georgia N. Nigro

The Effects of Drawing and Puppets in Children's Reports of Positive and Negative Events

This thesis examines how young children narrate experienced emotional events. In particular, it examines children's narratives using three different interview techniques. Previous research suggests that when interview techniques reduce social demands placed on children, they report more information about emotional experiences. This study builds upon past research that has found drawing during recall enhances the reports of young children. In addition, it investigates whether puppets could similarly reduce social demands during an interview. In this study, five- and six-year-old children from a local elementary school experience an event in their classrooms that includes two interruptions— one positive and one negative— similar in length, causality, and temporal sequence. Following the event, children are assigned to a drawing, puppets or verbal recall condition and individually interviewed about what they remember. The results of this thesis will add to our understanding of the effectiveness of drawing as a narration tool, resolve the question of whether nonspecific props enhance children's reports, and clarify questions regarding children's narration of positive and negative experienced events.

Saul L. Miller

Advisor: Michael J. Sargent

The Effect of Processing Goals on the Memory of Ambiguous Behaviors

The effects of two types of encoding processes (impression formation and memorization) were tested with behaviors that are ambiguous in terms of the traits they imply. Previous research has shown that impression formation often leads to better memory than memorization. However, Experiment 1 provides evidence this may not be true when the individual of whom we are forming impressions performs ambiguous behaviors. Experiments 2 and 3 confirm it was the ambiguous statements that explained why the typical effect of impression formation instructions was not replicated in Experiment 1. This goal is accomplished by experimentally manipulating the ambiguity of the statements (within subjects in Experiment 2 and between subjects in Experiment 3). Experiment 4 determines if the typical effect of impression formation instructions can be replicated with even ambiguous statements, provided that perceivers are given a prior expectancy about the target individuals, and that this expectancy serves to disambiguate the statements.

Claire A. Schneider

Advisor: Rebecca L. Fraser-Thill

Why Do Adolescent Boys and Girls Differ in Their Experiences of Aggression?: An Investigation Through the Lens of Self-Construal Theory

Experiment 1 of this thesis investigates the relationship between self-construal and self-reported experiences of physical and social aggression and victimization in adolescents. Eighth-grade participants were asked to complete the Relational-Interdependent Self-Construal Scale (Cross, Bacon, & Morris, 2000). This measured the degree of interdependence of their self-construal, i.e., how much they thought of themselves in terms of their relationships with close others. It also utilized the Revised Peer Experiences Questionnaire (Prinstein, et al., 2001), in which eighth-graders were asked to report how often they experienced physical aggression, physical victimization, social aggression, and social victimization. Results indicated that girls scored higher on the RISC scale, suggesting they have more interdependent self-construals than boys. The only gender difference on the RPEQ was in social victimization—girls reported being the victim of social aggression more than boys. No correlation existed between scores on the RISC and RPEQ, signifying that physical and social aggression were unrelated to self-construal. In Experiment 2, eighth-graders were primed with either an independent or interdependent self-construal, and completed the RPEQ again to investigate whether priming affects reported aggression.

Caroline A. Smith

Advisor: Amy L. Bradfield

Eyewitness Confidence: How Does It Influence a Photospread Administrator?

There has been much psychological research regarding the potential for bias in eyewitness identification. However, the procedure is used frequently and is heavily relied upon in our legal system. Are investigators influenced by eyewitness confidence level? This thesis examines how one eyewitness's confidence could be used by an investigator to influence the identification decisions of subsequent eyewitnesses. One week after a crime was staged for fifty eyewitnesses, participant investigators (PIs) administered target-absent, sequential photo lineups to a confederate eyewitness (CW), who identified the same photo each time with either high or low confidence. PIs then administered the same lineup to participant eyewitnesses (PWs). The tendency for the PW to identify the same person as the CW was measured, along with other factors including actual and perceived confidence levels of PWs and perceived believability of PWs. Results show significant differences in identification choices of PWs across photos. In the low confidence condition, for example, a photo identified by the CW was identified by the PW significantly more than other photos. A significant negative correlation was shown between the PI's rating of PW believability and the number of times the PI and PW looked at one another's faces during a videotaped lineup.

Kathryn L. Stevens

Advisor: Georgia N. Nigro

Interpreting Federal Educational Reform in a Local Context: Three Teachers' Lived Experiences with the No Child Left Behind Act

Over the past few decades, the federal government has made several attempts to close socioeconomic and race-related achievement gaps among our nation's students through the implementation of standards-based school reform. Despite these efforts, the gaps remain. Although much empirical research has been dedicated to identifying and eradicating obstacles standing in the way of educational improvement, few studies have used qualitative methods to explore how teachers attach meaning to and carry out federal reform. Psychologists possess a unique combination of evaluative, clinical, and organizational skills, and can offer useful perspectives on these issues. This thesis analyzes teachers' lived experiences with the most recent federal educational reform, the No Child Left Behind Act (NCLB). Through three ethnographic case studies, I aim to understand the interpretive processes staff employ when implementing educational reform, and to probe their responses to changes wrought by the reform. My analysis also highlights the NCLB's strengths and weaknesses, as seen through the teachers' eyes. I conclude with a discussion of the implications of this research for educational policy.

RELIGION

Benjamin B. Prevas

Advisor: Carl B. Straub

Preparing to Leap: A Kierkegaardian Analysis of "Wilderness" in the Becoming of the Self

"Wilderness"—being that which is "wild" and "other"—is often considered to be a place of spiritual encounter. Through consideration of Danish philosopher Soren Kierkegaard's authorship, it is possible to formulate a Kierkegaardian analysis of spiritual experience in the "wilderness." In doing so, one is able to identify "wilderness" experience as an accidentally significant impetus in the spiritual advancement of the individual human self. This is accomplished through the development of faith and in the resolution of the existential crisis faced by the self. While "wilderness" itself as an external place is unnecessary to the development of faith, understanding of the self provided by "wilderness" experience can prepare the individual to a point of understanding where he/she makes a "leap to faith," *at least*, a possibility. Such a leap consists of a qualitative transition within, from the existential state of despair to faith. It alerts the individual to the possibility of faith, and subsequently actualizes that possibility. The individual can abstract the relevant possibilities from experience in the "wilderness," but the

possibility can only be actualized by the humble, faithful acceptance of God's grace, whereby the individual is liberated from despair.

Megan A. Price

Advisor: John S. Strong

Moving Faith: Religion on the Road in the Hindu Tradition

Pilgrimage is a rich practice that springs from all major religious traditions. One way of navigating the many examples of religious pilgrimage is to identify and classify particular practices to develop models so as to facilitate a comparative analysis. This project will develop two such models: *transactional* and *transformational* pilgrimage, applying them to a specific case study: the Ayyappan Hindu Pilgrimage to the Dharmasastha Temple of Sabarimalia, India. Through analyzing the practices of this specific site, I demonstrate that the original pilgrimage more closely resonates with a *transactional* pilgrimage, emphasizing destination and interaction with Divinity. However, over time the temple has acquired a level of fame and patronage that has effectively changed its focus and religious implication, so that it now espouses a more *transformational* character, promoting the journey toward permanent conversion. Further, this pilgrimage has recently been recreated at the Sri Siva Vishnu Temple in Lanham, Maryland. This recreation is a strong example of a *transformation* pilgrimage, touting general ideologies and moving toward community cohesion. This study will show that even within a single tradition, disparate types of pilgrimage can be manifested, leading to many interpretations of what constitutes a "sacred journey."

RHETORIC

Ryan M. Shepard

Advisor: Charles I. Nero

Politics and Prevention: A Rhetorical Analysis of America's Terrorism Warning System

When Tom Ridge, Secretary of the Department of Homeland Security, unveiled a new color-coded terror alert system in March, 2002, the reasoning behind its creation seemed an almost transparent effort to save lives. Since adoption of the system, yellow and orange alerts have kept terrorist threats fresh in the minds of the American public. As I contest in this thesis, the terrorism warning system, by its very nature, throws the public into a state of fear. Instead of looking at the way the system manages to save lives through evoking this strong public response, I address the issue in a more intriguing frame of reference: What are the political consequences of the Bush Administration's use of this device? By analyzing the terrorism warning system's

use of color and the vague messages that accompany alert bumps, as well as public approval ratings of the President, I argue that America's terrorism warning system is an obvious political benefit for the Bush Administration.

SOCIOLOGY

Elizabeth C. Jackson

Advisor: Sheri L. Kunovich

The Role of NGOs in the Emergence of Transnational Social Movements: A Look at the Movement Opposing the Free Trade Area of the Americas

Traditional research on social movements provides the background on which new social movement theory is developed. Its purpose is to show the significant role non-governmental and non-profit organizations play in the emergence of transnational social movements. In the process, organizations help foster the idea of global citizenship, which in turn increases participation and support. More specifically, this research focuses on the transnational social movement in opposition to the Free Trade Area of the Americas (FTAA); an agreement currently being negotiated by thirty-four countries in the Western Hemisphere. A case study approach is used whereby one organization, Oxfam International, is closely analyzed. This allows the researcher to examine methods and tactics used in their campaign against the FTAA in order to become a successful component of a transnational social movement. Findings indicate that Oxfam International plays a considerable and critical role in formation of the transnational social movement in opposition to the FTAA. These findings are then applied to the role of similar organizations in a variety of emerging transnational social movements.

THEATER

Saida L. Cooper

Advisor: Paul T. Kuritz

The Search for Signs of Intelligent Life in the Universe: A Character Study

The Search for Signs of Intelligent Life in the Universe, by Jane Wagner, is a one-woman comic play of social commentary. This project involves an in-depth analysis of the themes and characters presented by Wagner, an examination of stereotypes existing in the characters, a discussion of the rehearsal progress, conclusions reached on the collaborative process of working with the director, and adapting the original script to a college audience. The adaptation of the

script culminates in a chronicle of society's morals, needs, and desires through the central character Trudy, a bag lady on the streets of New York City, and seven other unique characters whose lives are seen through Trudy's eyes. Under the guidance of the director, Michael Rafkin (founding artistic director of the Mad Horse Theatre Company and affiliate artist at the Portland Stage Company), each of these eight characters has been explored and developed through distinctive vocal and physical rhythms and behaviors. The analysis and explorations of Jane Wagner's themes and characters conclude in four public performances.