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ANTHROPOLOGY

Holloway W. Constantine

Advisor: Steven E. G. Kemper

Study Abroad as a Rite of Passage

Students traveling abroad walk the line between being residents of their host country and being tourists. At most, students can only have moments in which they are included in the intricacies of the culture of their host country. One way that the role of students as tourists is reinforced is the self/other dichotomy that is formed prior to leaving home. In this thesis I examine the mechanisms by which students can attempt to break down the self/other dichotomy and have moments of inclusion in the culture in which they are studying. I address these issues in three segments. The first covers the advertising and propaganda of study-abroad programs as they contribute to the formation of the self/other dichotomy. The second explores tourist issues and the ways in which students get involved in the public arena of life abroad. The third focuses on the issues unique to homestay experiences and the personal relationships formed in this part of students' experiences abroad.

Holly A. Scheuhing

Advisors: Elizabeth A. Eames and Mary T. Rice-Defosse

L'Interaction des Cultures: La Littérature Malgache Ecrite en Français

This thesis examines three Malagasy novels: one written during the period of French colonization, one written during the postcolonial period, and one more modern novel. It discusses the restraints faced by three Malagasy writers who chose to write in French, using a French mode of communication, the novel. Depending partly on the time period during which the author wrote, each author transforms the novel in his or her own way to make it more of a Malagasy mode of expression. The novels are examined with the combination of literary and anthropological analyses. Ethnographic information is used to decipher the novels. In the case of the second novel, little ethnographic information is available from outside sources and therefore it is derived from within the text itself (which is highly ethnographic in nature). This study calls into question the role of language in a postcolonial setting, and the value of novels as a source of anthropological knowledge.

Kelly A. Spence

Advisors: Loring M. Danforth and Shuhui Yang

Nuosu Shamanism: Ritual and Meaning in Southwestern China

Little is known about the Nuosu subgroup of the Yi minority in China's northern Yunnan Province. Because of their history of isolation from the Han and other minorities, however, the Nuosu have developed a unique culture, distinct from any other in China. A source of identity and pride for the Nuosu are their Bimo, or shamans. Not only do the Bimo serve as religious healers, diviners, teachers, and mediators, but they also maintain and preserve a rich culture of unique religious beliefs and practices. Using my own fieldwork with the Nuosu, I examine the ritual of *Xikebu*, performed to expel evil caused by malevolent spirits. During this ritual, elaborate myths are chanted, and rites of passage such as sacrifice are performed to heal the participants. These aspects of Bimo ritual embody symbols that, to paraphrase Clifford Geertz, constitute a story the Nuosu tell themselves about themselves. To illustrate this, I draw on Clifford Geertz's interpretative anthropological approach to understand symbolism; Levi-Strauss' structural examination of myths; Turner's and van Gennep's insights on liminality within rites of passage; and Kleinman's assessments of religious healing.

BIOLOGICAL CHEMISTRY

Vicki P. Losick

Advisor: T. Glen Lawson

Identification and Evaluation of Hepatitis A Virus 3C Protease Destruction Signal

Hepatitis A virus (HAV) 3C protease is a substrate for the ubiquitin-mediated proteolytic system. The attachment of ubiquitin to a protein requires an ATP-dependent enzymatic cascade and a destruction signal in the target protein. We have identified a protein destruction signal in HAV 3C protease to be the amino acid sequence ³²LGVKDDWLLV⁴¹. The identification of the signal was accomplished by generating this sequence in an analogous site in the poliovirus 3C protease, which is normally a poor ubiquitin system substrate. The presence of the LGVKDDWLLV sequence in the poliovirus 3C protease resulted in the ubiquitination and proteolysis of the poliovirus 3C protease. This represents the second protein destruction signal identified in a picornavirus 3C protease. To determine if HAV 3C protease can be ubiquitinated while in the context of polyprotein precursors, we examined several 3C protease containing usual P3 region polyproteins. The HAV 3C precursors, 3ABCD and 3CD, were found to be ubiquitinated. These results differ with encephalomyocarditis (EMC) virus 3CD, which was shown previously not to be ubiquitinated *in vitro*. This may suggest that it is unnecessary for HAV 3C protease precursors to exist late in viral infection.

CLASSICAL AND MEDIEVAL STUDIES

Kurt M. Eilhardt

Advisor: Michael E. Jones

Patrum Vestigia Sequens (Following in the Footsteps of the Fathers): The Venerable Bede's Self-Portrayal as a Father of the Church

The Venerable Bede (673-735) was arguably the most learned and prolific scholar of the early medieval period. From his isolated monastic outpost on the northern coast of Britain, Bede lived on an intellectual frontier between Celtic and Roman traditions. Despite his isolation, Bede acquired a remarkable Latin style and a great appreciation of the Church Fathers, men who rose out of the rubble of the fourth and fifth centuries to champion ecclesiastical causes. Bede composed an impressive list of works. His scientific writings, in particular, shed a unique light on Bede's view of himself, a view that could otherwise not be understood. By considering Bede's scientific works, this thesis suggests that through his scholarly growth and his identification with a Roman rather than an Irish intellectual heritage, the Venerable Bede saw himself as the inheritor of the tradition left by the Church Fathers, and, in fact, as the next Father of the Church.

Melissa A. Mitchell

Advisor: Thomas A. Hayward

Poetry & Translation: The Art of Failure or a Failed Art?

Translators have often viewed their task as more of a burden than a privilege, creating vast amounts of translations that resemble crib notes more than pieces of literature. With all these translators and translations available, certain questions arise. Which translators and translations have added something to the life of the text? Which have not? What criteria should we apply in an attempt to distinguish the artisans from the assembly-line workers? Walter Benjamin presents us with an answer to these questions. In his "Die Aufgabe des Übersetzers" he describes a theory of translation that regards some great poets as hacks and reveres others. I study Benjamin's theory, first outlining aspects important to the field of classical poetry translation and then reviewing several essays on Benjamin written by prominent critics in an attempt to aid our understanding of this theory. Using characteristics underlined by Benjamin, I analyze three sets of poems (Latin and Greek originals and English and Latin translations), and determine to what extent the translations have met Benjaminian standards. Following these analyses, I apply my research to creating a translation of my own.

Mindy L. Newman

Advisor: Robert W. Allison

Reflecting the Sacred: Visualization and Sacred Space in *Itinerarium Egeriae*

Itinerarium Egeriae is the narrative of a three-year pilgrimage to Palestine conducted during the late fourth century by a woman named Egeria. The text is composed as a series of letters to Egeria's "sisters" describing her journey to locations that she feels, as a Christian, are close to God. Thus *Itinerarium Egeriae* contains important information regarding how fourth-century Christian pilgrims imagined sacred spaces. Egeria functions as a "mirror," "reflecting" an internalized conception of the sacred onto the physical landscape of the holy sites she visits. The purpose of this thesis is to identify and explain how Egeria visualizes the sacred—the divine presence of God—in the holy sites of *Itinerarium Egeriae* through the use of a four-step model: 1) Egeria internalizes a specific vision of the "heavenly" Jerusalem, the paradigmatic model of Christian sacredness. 2) Egeria accesses this image through liturgical worship and projects it onto the physical landscape. 3) The physical landscape becomes a manifestation of the sacred and is reflected back to Egeria. 4) Egeria's recognition of the heavenly image results in an increased understanding of the liturgy that is reflected back to her sisters through her writings.

CLASSICAL & ROMANCE LANGUAGES & LITERATURES

French

Holly A. Scheuhing

Advisors: Mary T. Rice-DeFosse and Elizabeth A. Eames

L'Interaction des Cultures: La Littérature Malgache Ecrite en Français

This thesis examines three Malagasy novels: one written during the period of French colonization, one written during the postcolonial period, and one more modern novel. It discusses the restraints faced by three Malagasy writers who chose to write in French, using a French mode of communication, the novel. Depending partly on the time period during which the author wrote, each author transforms the novel in his or her own way to make it more of a Malagasy mode of expression. The novels are examined with the combination of a literary and anthropological analyses. Ethnographic information is used to decipher the novels. In the case of the second novel, little ethnographic information is available from outside sources and therefore it is derived from within the text itself (which is highly ethnographic in nature). This study calls into question the role of language in a postcolonial setting, and the value of novels as a source of anthropological knowledge.

Amanda E. Cause
Advisor: Kirk D. Read

Le Défi de la Musulmane Française

France is at a unique point in its history—socially, politically, and economically. In the wake of European unification, globalization, and technological modernization, this proud nation is re-evaluating its identity. Underscoring debates on this subject is the question of immigration, and more specifically, Muslim immigration. Since the wars for independence in northern Africa in the 1960s, France has been flooded with waves of Muslim immigrants looking for both work and residence. Yet in a historically Catholic nation where *de facto* assimilation is expected and secularism is the rule, the newcomers have been awkwardly welcomed. The political arena has sent both liberal and conservative messages, while the French press has framed immigrants in both positive and negative lights. Moreover, the status of female Muslim immigrants has boldly brought questions of gender to the forefront in the battle over cultural assimilation. This thesis argues that the future of French identity must deal with the compelling issue of whether multiculturalism spurred by Muslim immigration will take root in this country that has resisted it for so long. The evidence shows that France may have no choice but to do so.

ENGLISH

Unyi M. Agba
Advisor: Carole A. Taylor

“Medea in Blackface”: Exploring the Medea Myth in Contemporary Black Women’s Literature

Since Euripides first dramatized the fabled Medea in the eponymous tragedy 2500 years ago, many revisions of his original characterization have reappeared in Western tradition. In twentieth-century black American literature, from Angela Grimke’s 1918 play *Rachel* to Toni Morrison’s classic, *Beloved*, many writers have invoked Medea as a figure for social change. The protagonist, a female “Other,” is devoid of both social and personal agency and must claim her existence or being through motherhood, which is usually threatened by either a dominant figure, or a more conceptual social demon. These texts use a cohesive literary frame of reference to allude to either a serious Medea figure or to a parody of the Medea story, as in George C. Wolfe’s *The Colored Museum*. My thesis focuses on three primary texts: *Rachel*, *Beloved*, and *The Colored Museum* to examine how black writers have transformed the Medea myth to create alternative methods of self-definition and resistance.

Phoebe M. Larson

Advisors: Cristina Malcolmson and Anne B. Thompson

Queen Elizabeth I: Representing a Female Ruler in Renaissance Society and Literature

The position of Queen Elizabeth I as ruler of England during the Renaissance posed a direct threat to an established social hierarchy, which confined women within a strictly domestic sphere beneath men. It was therefore necessary for Elizabeth to constantly legitimize her position on the throne as a female ruler, a concept deemed as unnatural to the Renaissance mind. This thesis explores the strategies employed by Elizabeth that enabled her to represent herself in a variety of forms as the occasion demanded. Examining the political writing of John Knox illuminates Renaissance attitudes towards women and reveals the hostility of men towards females in power. Edmund Spenser's *The Faerie Queene* provides Elizabeth with some positive examples of powerful female leaders, yet also attempts to direct her towards the proper behavior of a female ruler in both politics and love. Elizabeth's use of self-representation in defense of her position emerges in stark contrast to these writers through an examination of speeches made throughout her reign.

Susan M. Lydon

Advisor: Lillian R. Nayder

Jane Austen and Subversion

This thesis examines subversive messages in the marriage plots in Jane Austen's novels. Over the past two centuries, Austen's novels have met with a wide variety of interpretations. They have been dismissed as period pieces, derided as vulgar, touted as highbrow, and championed by feminists. Critics often claim that Austen's marriage plots confirm conservative values and steer clear of rebellion. I argue that Austen's use of parody and irony suggests a divergence from traditional expectations regarding women and marriage. The received life of Jane Austen, together with general ignorance about the development of feminist ideas from the beginning of the eighteenth century, has obscured her importance as a feminist moralist of the age of enlightenment. I examine aspects of Austen's life that suggest that she had subversive tendencies. Looking at all six of her major novels along with her early writings and unfinished works, I examine how Austen depicts women in her novels as victims of patriarchy, and men in her novels as failing to fulfill the authoritative role that patriarchy assigns them. I propose that with her ironic treatment of marriage, Austen actually deflates the values of the patriarchal society that she depicts.

Julia E. Phelan

Advisor: Katherine A. Adams

Intersecting Oppressions: Working-Class “Standpoints” in Carolyn Chute’s *Merry Men*

Carolyn Chute’s fiction has been praised for its intricate descriptions of the community of Egypt, Maine, and for a perspective on working-class life seldom found in the literary world. However, scholars also criticize Chute’s narrative structure and voice for their nonconformity to presumed literary standards. Through a reading of *Merry Men*—a novel that traces the struggle of several families to survive in an oppressive world—and an exploration of the reviews written in both praise and criticism, this thesis argues that we need to revise critical approaches toward working-class literature. Drawing upon Nancy Hartsock’s theory of “standpoint,” the thesis develops a theoretical foundation that attempts to uphold the class-based activism of the author without essentializing class as the only critical aspect of the text. In application of this theory, *Merry Men* is analyzed with particular attention to the intersection of class with gender, arguing that this intersection is crucial to understanding specific characters and the community as a whole. “Standpoint” is used to explore the intersecting structures of individual identity as well as the interactions among differing perspectives within the novel.

Elizabeth A. Whiting

Advisor: Steven C. Dillon

Pynchon’s Journey Beneath the Los Angeles Facades: From L.A. 60s Culture to *The Crying of Lot 49*

This thesis studies cultural artifacts of the city of Los Angeles, California, from the 1960s, focusing on film, painting, public sculpture, and literature. These studies reveal cultural trends of isolation manifested in themes of remove, a sheen or barrier, and discontent. They emerge as the underlying voices of the city become exposed through the ways that the city is represented and the ways in which the city represents itself. The body of the work is divided into three sections. The first concentrates on the art and films of that decade that use the city as their setting. The second looks at a section of Los Angeles, Watts, and analyzes the way that area has been represented in terms of history and the Watts Towers of Simon Rodia. The third is a reading of the novel, *The Crying of Lot 49*, by Thomas Pynchon, which is set in the fictional San Narciso, a suburb of Los Angeles. This final chapter is a culmination of the previous two, using their findings to place Pynchon’s work in a cultural context, providing a new way to read the novel.

Emily P. Winsett

Advisor: Lillian R. Nayder

Jane Austen and Motherhood

This thesis explores the relationship between the mother figures and their daughters in Jane Austen's six major novels. An introductory chapter reveals the nature of Austen's own relationship with her mother. Mothering tendencies in nineteenth-century England are also explored in conjunction with Austen's biography. This biographical and historical background provides the foundation for the analysis of Austen's novels.

I argue that Austen uses inadequate mothers to expose and critique women's status in society. The thesis is divided into three segments, coinciding with the three types of mothers Austen presents. The second chapter uses *Pride and Prejudice* and *Sense and Sensibility*, in which incompetent birth mothers are studied. This chapter infers that the limited world of women directly creates their childlike natures. The third chapter focuses on *Northanger Abbey* and *Mansfield Park*, in which both birth mothers and surrogate mothers are present. It suggests that a woman, whether a mother or a surrogate, is completely molded by societal values. Finally, the thesis concludes with a study of *Persuasion* and *Emma*, in which the heroines' mothers are dead. Thus, the chapter examines a girl's development into womanhood without her mother.

ENVIRONMENTAL STUDIES

David E. Levin

Advisor: J. Dykstra Eusden, Jr.

Dependence of the Fellfield Alpine Vegetation Community on the Alpine Zone Littleton Formation in the Alpine Zone of the Presidential Range, New Hampshire

Factors that influence the distribution of alpine vegetation communities are well-documented throughout the world. Detailed alpine vegetation community mapping was recently completed in the Presidential Range, New Hampshire. One of the mapped communities, fellfield, is composed of lichens growing broken bedrock blocks and seems to be poorly correlated with topographical features that typically explain the distribution of alpine vegetation communities. This study was undertaken to examine the possibility of a correlation between the fellfield community and the bedrock substrate using Geographical Information Systems. The fellfield community, although studied little, is important for alpine areas management. Management strategies are often based on protecting the obvious fragile plant communities that grow in the harsh conditions above tree-line. Therefore, trails and use areas are often routed around those communities and by default, pass through the fellfield communities due to the durable substrate on which the community grows and due to the lack of knowledge about the community. Analyses show fellfield communities growing preferentially on the dominant bedrock type of the alpine zone, possibly due, in part, to the size of the bedrock blocks.

These results indicate a need for further research and have significant implications for alpine areas management strategies.

Meredith W. Mendelson

Advisor: Lynne Bennett

Why Voluntary Regulations Fail: The Future of the Ballast Water Exchange Program

With the growing awareness of bioinvasions, the shipping industry has been targeted as a primary vector for the global transport of organisms through ballast water. A regulation under the National Invasive Species Act (1996) states that ships should voluntarily exchange their ballast water in mid-ocean to reduce the potential for nonindigenous species introduction. This exchange presents safety hazards for vessels, as well as increased costs. This thesis examines the voluntary exchange through comparative analysis of two other voluntary programs—the chemical industry’s responsible care program (a successful program), and the use of turtle exclusion devices in the shrimping industry (an unsuccessful program which became mandatory). Voluntary regulation is rarely an efficient method of environmental management. This research identifies the causes of—and potential solutions for—this inefficiency. Along with traditional research in journals and trade reports, qualitative interviews of involved individuals probe the socio-economic rationale of creating, participating, or not participating in voluntary ballast water exchange. It is anticipated that the current objections to the exchange are a result of perceived conflicting interests between the industry and science, and that if these interests were aligned, the industry would favor a ballast water management program that addressed their concerns.

GEOLOGY

Krista B. Anderson

Advisor: J. Dykstra Eusden, Jr.

Electron Microprobe Age Dating of Monazite from the Acadian Orogeny, Northern Presidential Range, New Hampshire

For this thesis a unique new method of monazite age dating was used to constrain the timing of metamorphic and igneous activity in the Presidential Range during the Acadian orogeny. In situ electron microprobe analysis was used to obtain quantitative compositional information for multiple age domains within compositionally zoned crystals of monazite. Three rock samples containing monazite were dated in this study—a granite from the Bickford pluton, a staurolite schist, and migmatitic gneiss from the Devonian Littleton Formation. Analyses for the schist yielded several older, inherited ages as well as ages of the peak Devonian metamorphism. The Bickford granite

produced late Devonian/early Carboniferous ages in agreement with previously determined ages of similar plutons in the area. Analysis of the sillimanite grade gneiss revealed Devonian ages related to peak metamorphism and intrusion of the Bickford granite, as well as Silurian and Ordovician ages inherited from detrital monazites. Results of this thesis confirm that monazite systematics can indeed preserve evidence of complex growth histories, and that previous geochronology studies in the Presidential Range may have recorded components of older inherited ages along with more recent crystallization ages.

Nicole R. Granger

Advisor: J. Dykstra Eusden, Jr.

Kinematic and Vorticity Analysis of a Transpressive Shear Zone, Prince Rupert, British Columbia

The Western Fold and Thrust Belt in the Prince Rupert-Skeena area of British Columbia shows tops to the west thrusting and has yielded an inverted metamorphic sequence. Within the Western Fold and Thrust Belt is the Prince Rupert Shear Zone, a north-south striking structure located off the coast of Prince Rupert. Lineation measurements show that there is a slight dip slip component to the shearing. A Kinematic analysis of four islands through which the Prince Rupert Shear Zone extends suggests that a late component of left-handed strike slip shear exists. The kinematics observed in the field as well as in thin sections were principally left-handed indicators, and include rotated porphyroblasts, asymmetric boudinage, mica fish, and S-C mylonites. A vorticity analysis was conducted in order to quantify the amount of pure shear versus simple shear. The results show that the rocks have experienced general shear. The kinematics and the lineation measurements support strike-slip normal faulting, which contradicts previous work done in the area.

Kristin E. Marshall

Advisor: Julie E. Blue

Contaminant Migration and Fate at the Picillo Farm Superfund Site

Picillo Farm of Coventry, Rhode Island, is a current Superfund site undergoing pump-and-treat remediation for numerous contaminants, particularly DNAPL and VOCs. The pump-and-treat system is projected to adequately clean up the site. However, rebound is expected once the system is shut down. How fast rebound will occur, and at what level, is of major concern to the 2,000 residents living between one-quarter and three miles from the site. Projected DNAPL migration may also put other aquifers at risk.

An alternative method, bioremediation, is also taking place in situ, degrading PCE and TCE to DCE, vinyl chloride (VC), and ethene. Degradation from VC to ethene is often found to be incomplete, as is the case here. How successful this process is depends on the site characteristics, and because VC is the more toxic product, it is important to identify factors for complete degradation. The migrating

