

*The University of Notre Dame  
Department of Anthropology*



**4:00-7:30**

**Sixth Floor Flanner Hall**

**April 26, 2010**

## INTRODUCTION

Seventh Annual  
University of Notre Dame  
Department of Anthropology

Undergraduate Research Exposition  
April 26, 2010

As a department our commitment to collaborative learning and “hands-on” engagement results in the annual production of innovative research projects by students in the classroom, the laboratory, and the field. This poster presentation and multi-media reception will highlight the original research work of our undergraduate students and emphasize the diverse and rich academic environment at the University of Notre Dame.

We are pleased that you have joined us to recognize and celebrate our students’ achievements in creating and disseminating knowledge. Thank you for attending this event.

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## **SENIOR THESIS RESEARCH ORAL PRESENTATIONS:**

The following seniors will orally present their thesis research in 625 Flanner Hall.

### **Katie Avery, 5:00**

*Cultural and Linguistic Differences and the Patient-Physician Relationship*

Immigration to the South Bend area has created a diverse population, including a portion of the population with limited English proficiency (LEP). The literature shows that barriers to communication between patients and physicians arise when translation services are not provided, or are not provided by trained professionals. Cultural differences also produce communication barriers because they impact patient and physician's mutual understanding. Furthermore, communication difficulties can lead to increased costs of service, more extensive testing, and decreased compliance. Physicians in South Bend treat a diverse group of patients, and must be able to communicate with all of these different groups. The literature confirms that this diverse communication is important. In this study, the effect of limited English proficiency and cultural differences between patients and doctors was explored through a literature review and semi-structured interviews with physicians in the South Bend area. The interviews confirmed the existence of communication barriers and the helpfulness of translation services. They also suggested different methods to overcome the communication barriers.

*Faculty Mentor: Dr. Maurizio Albahari*

## Justin Perez, 5:15

*Pichanga de locas: Street Volleyball in Two Sectores Populares of Peru.*

Peru is a country of both enormous diversity and fragmentation. Gay men are one of many marginalized groups in Peruvian society, and many are still seeking to create space for themselves in an intolerant society affected by decades of political violence. This paper provides an ethnographic description and analysis of one particular activity that many self-identified gay men engage in every day. In neighborhoods Lima and Callao, gay men appropriate aspects of the pick-up soccer ritual, or *pichanga*, and transform it into a *pichanga de locas*, a performance of pick-up volleyball games played in public spaces like streets and parks. The activity is located both within the urban, built environment of the neighborhoods where it is played and in relation to an emergent “gay geography” in Lima. The unique linguistic code that emerges within the space of the volleyball court is described and examined. Some interesting aspects to this code, such as the use of ritualized insults and grammatical gender, are explained. Mastery of this linguistic code is essential in order to participate in the street volleyball games. I will argue that this fluency must also be combined with a mastery of a particular technique of volleyball play, one that is different than “formal” techniques of play. As they cheer the athletes, community spectators embrace behaviors normally stigmatized by society. I will close by examining the role of socialization in fostering tolerance for diversity in Peru.

*Faculty Mentor: Dr. Maurizio Albahari*

Funding provided by

Undergraduate Research Opportunities Program (UROP),  
Institute for Scholarship in the Liberal Arts (ISLA)

## Jennifer Zubyk, 5:30

*Crossing the (Limit) Line: An exploration of inter-town conflict between neighboring indigenous towns in highland Guatemala*

Throughout history, land disputes have led to uneasy, often violent, relations between communities the world over; in this, Guatemala is no exception. Using ethnographic data collected during the summer of 2009, I explore an ongoing inter-town conflict between two neighboring indigenous towns in highland Guatemala. Using narrative histories from both towns, as well as scholarly accounts of the conflict, I explore the past and present effects of the conflict on both towns to determine if and how further peace can be achieved and maintained in the future. The goal is to reach a better understanding of the nature of inter-town disagreements while simultaneously stimulating further discussion with regards to possible methods for future reconciliation.

*Faculty Mentor: Dr. Eric Lindland*

### Funding provided by

Undergraduate Research Opportunities Program (UROP),  
Institute for Scholarship in the Liberal Arts (ISLA)  
Center for Undergraduate Scholarly Engagement (CUSE)  
Learning Beyond the Classroom (LBC)

## Caroline Hawes, 5:45

*In-Hospital Intervention and the Prevention and Reduction of Violence: A Public, Community Health Approach*

Ethnographic research was conducted at Jacobi Medical Center, a Level I Trauma Hospital in the Bronx serving predominantly poor and marginalized African American and Latino patients, to investigate interpersonal assault violence and resulting violent injury, trauma recidivism, and the possibility of hospital-based violence intervention. The results examine how the hospital confronts the physical aspects of trauma, but not the behavioral and sociocultural causes of violence despite the opportunity to do so. Informed by extensive secondary research in background and theory as well as case studies, it is concluded that to curb recurrent violent injury, the hospital must approach trauma more holistically as a central partner in the coordinated community mobilization necessary to achieve sustainable prevention and reduction of violence.

*Faculty Mentor: Dr. Daniel Lende*

### Funding provided by

Undergraduate Research Opportunities Program (UROP),  
Institute for Scholarship in the Liberal Arts (ISLA)  
Center for Undergraduate Scholarly Engagement (CUSE)  
Eck Institute for Global Health

## Jill Schroeder, 6:00

### *Biologically Universal, Culturally Individual: The Cultural Construction of Responses to Menstruation*

Puberty is a tumultuous period, forcing individuals to confront physical, emotional, and social changes. For many, the successful navigation of puberty relies on assistance from outside sources, including family and friends. However, the most significant impact on how a person interprets her pubescent milestones is the culture in which she was socialized. I chose to look at how specific societies respond to menstruation, reinforcing it as a positive or negative life occurrence. Women of all ages assign meanings to this biological event based on the culturally-proscribed responses they have learned through their earlier years. I explored how various cultures around the world teach women how to respond to menstruation, both positively and negatively. I then explored the cultural tendencies within the United States, influencing how individual females perceive their own periods. Does the United States present a menstrually-friendly culture, or does our country perpetuate the oft-discussed menstrual taboo? To answer my question, I interviewed 12 women and surveyed about 160 women, all undergraduate students, to discuss their experiences with menstruation, comparing them to the cross-cultural examination. Our culture actively maintains four sub-cultures which all play a role in women's menstrual experiences: culture of embarrassment, culture of fear, culture of silence, and culture of acceptance. Unless specific steps are taken to improve the sub-cultural messages that our country is sending, the acceptance will cease to exist, usurped by anxiety, disgust, and humiliation.

*Faculty Mentor: Dr. James McKenna*

## Collin McCabe, 6:15

### *Conceptualizing and Operationalizing a Theory of Culture among the Great Apes*

This synthetic study approaches the topic of “animal culture” as a unique tool in the evolutionary analysis of human culture. Working from criteria proposed in various anthropological definitions of culture, a basic framework for a broader concept of “animal culture” was established. This framework, of culture as a set of learned behaviors shared amongst a group differing over time and space, was then investigated more closely in order to reach a unified concept of culture which could serve to bridge the gap between humans and non-humans. An overview of the major recent studies on culture among the great apes in the wild is then presented as a way of operationalizing a concept of culture as a pattern of behaviors shared among groups and differing between groups which is unexplained by genetic or ecological differences. Although geographically variable patterns in behavior have been demonstrated among groups in the great apes, and research has shown these patterns to not have arisen due to genetic or ecological differences, field observations of social transmission of these patterns remains anecdotal. As a possible solution to this problem, I propose that network-based models could play a role in supporting the social learning hypothesis in the wild.

*Faculty Mentor: Dr. Agustin Fuentes*

## Ayslinn Tice, 6:30

### *Initiation into Inevitability: Gender Roles, Disciplinary Institutions, and Violence in Lesotho*

This research examines how gender roles in Lesotho are made inevitable by cultural forces, therefore condemning women to live lives of violence and vulnerability. It is based on ethnographic research completed over two summers in Mokhotlong, Lesotho, and consists of participant observation, focus groups, and individual interviews with young people who attended a local high school. I found that disciplinary institutions including the church, traditional initiation school, and formal education have dictated gender roles in Lesotho. Early missionaries removed traditional structures that allowed women leveraging power, including the custom of bride price. The church supports formal education, which promotes females' docility. Education promises greater empowerment to young women, but so rarely delivers on that promise. Formal schooling has become a locus of fear and humiliation for many young people; beatings by teachers have become increasingly common as a way to enact control over the students. These institutions have worked to ensure that females are socialized into docile and self-governing bodies, while males are pacified against challenging the state through initiation school, the principle organizing structure in traditional Basotho culture. As an unfortunate byproduct of this environment, recently initiated boys rape young women. Rape is used as a method for demonstrating their newfound manhood in the presence of their

cohort. Traditional constructions of masculinity become problematic in an environment that no longer holds esteem for this form of manhood. Women are trapped in a cycle of violence and fear by these institutions, and their roles in society have become increasingly complex and tenuous, as they arise from contradictory institutions.

*Faculty Mentor: Dr. Catherine Bolten*

Funding provided by

Undergraduate Research Opportunities Program (UROP),  
Institute for Scholarship in the Liberal Arts (ISLA)  
Kellogg Institute for International Studies

## Mark Flanagan, 6:45

*Contextual heavy alcohol use amongst homeless individuals, veterans with post-traumatic stress disorder and Notre Dame Students*

This project aims to compare social and individual aspects of heavy drinking as presented in three unique populations: the Notre Dame male student body, a local homeless population, and a local population of PTSD veterans. Although drinking differences and stigmas are typically recognized by quantity of alcohol consumed (light social drinkers versus heavier imbibers), heavy, and often more dangerous, drinking habits are generally lumped together as “problematic” (Alasuutari1992). Data was gathered on social aspects of drinking using a combination of surveys, participant observation, and life histories. Data was gathered on perceived conscious or individual experiences using informant-rendered intoxication graphs. While Notre Dame students differed significantly from homeless and PTSD drinkers in almost all 7 identified areas of social context, PTSD and homeless drinkers showed discrepancy from each other in the areas of sociality, violence, law, and poly-drug use. All groups showed differences in perceived altered-consciousness. These findings could have potential usefulness in defining alcohol typologies or creating novel and more effective ways of treating alcoholism/addiction.

*Faculty Mentor: Dr. Daniel Lende*

Funding provided by

Undergrad. Research Opportunities Program (UROP),  
Institute for Scholarship in the Liberal Arts (ISLA)  
College of Arts and Letters  
Center for Undergraduate Scholarly Engagement (CUSE)

## **Jenna Knapp, 7:00**

### *Agents, Victims, or Villains? An Exploration of the Contested Notion of Childhood on Kampala's Streets*

Viewed by many as visible signs of failed development, Kampala's street children lead lives dominated by surveillance and violence. This research seeks to illuminate the plight of street children in Kampala, Uganda and the prevalence of the cycle of violence as it plays out in their homes, in the streets, and in rehabilitation centers. The research draws primarily from interviews with 44 street children and seeks to portray their violent reality through their own voices. Additionally, it explores the way in which the ideological battle surrounding the nature of childhood is fought over the lives and bodies of Kampala's street children whose existence on the streets challenges the gerontocratic nature of Ugandan society. This research highlights the fundamentally different rehabilitation strategies of African Hearts Community Organization and Kampalingisa National Rehabilitation Center and exposes the assumptions of "proper childhood" under which these institutions operate.

*Faculty Mentor: Dr. Catherine Bolten*

#### Funding provided by

Undergrad. Research Opportunities Program (UROP),  
Institute for Scholarship in the Liberal Arts (ISLA)  
Center for Undergraduate Scholarly Engagement (CUSE)  
Kellogg Institute for International Studies

## Elizabeth Grace, 7:15

*Mandated Corporate Social Work:*

*The Community Reinvestment Acts Role in Commercial Social Consciousness*

This thesis explores the regulatory relationship between sociopolitical and commercial institutions, particularly the effect of governmentally legislated social consciousness on the behaviors of the banking industry in the contemporary market-based American society. Historical analysis shows that archaic exchange behavior was rooted in the social relationship of the consumer and trader. This social awareness allowed trader networks to enjoy multi-generational longevity and long-term sustainable profits. However, business has been so shielded by the government in favor of laissez-faire economic growth that there is little incentive for the commercial sector for community relationships societal reinvestment. The task of counteracting the impersonal nature of American business is left to weak regulation from the state, specifically the Community Reinvestment Act of 1977, an act that seeks to address discrimination in banking and lending to low-income neighborhoods. Based on ethnographic research on the banking industry's attitude towards the federally enforced Community Reinvestment Act that I conducted in Atlanta, Georgia summer 2009, I show that this type of legislation fails to re-embed social relationships into commercial interaction, and will continue to do so unless it also addresses the current mentality of the market.

*Faculty Mentor: Dr. Rahul Oka*

Funding provided by

Summer Service Learning Program (SSLP) 2009

## **STUDENT POSTER PRESENTATIONS:**

The following students will present their independent research via posters.

### **Claire Brown and Melissa Coles**

*Violent Phasing: The evolution of Irish Churches during the Reformation*

The Protestant Reformation was a tumultuous time in Irish history, with the violence indirectly affecting the architecture within Irish churches. While some churches were demolished, the majority were assimilated into the new Protestant cultural landscape. Many existing structures show evidence of these changes through phasing that in itself reflects the attitudes of each parish towards the changing religious climate. Through the examination of Clonmacnoise and Kilfenora as specific case studies in conjunction with a broad assessment of church trends during this time, we will illustrate the minor and major changes brought about by the Reformation in the religious architectural sphere.

*Faculty Mentor: Dr. Ian Kuijt*

## Claire Brown

### *The Construction of Rural Irish Identity and Heritage as Seen Through the Lens of Connemara Pony Shows*

Irish identity, heritage and culture are shaped through rural experiences. In the past and present this is manifested in agricultural lifeways and the changing local and national presentation of identity through horse fairs held in Western Ireland each summer. These fairs center on the Connemara Pony and provide insight into the formation of Irish heritage and culture. Rural Irish people are bound to place, culture, and heritage through their land. In this research, I will document the social and cultural context of Irish identity as seen through the interpretive lens of Connemara Pony shows. I will adopt a four level research program that includes the following: First, I will study the linkage between the agricultural heritage of Ireland and the Connemara Pony in Irish history. Second, I will examine the Connemara Pony as a historical foundation of agricultural heritage and its effects on rural lifeways in modern agrarian society. Third, I will interpret the historical origins of the Connemara Pony shows through the transition from agricultural farm animal to pleasure show pony. Finally, I will explore the Connemara Pony as a means of understanding Irish identity and heritage at the regional level. The Connemara Pony is more than just a breed, and the show is more than a performance; it provides a means of understanding regional identity and agricultural heritage as a direct link with the people and the land of Ireland.

*Faculty Mentor: Dr. Ian Kuijt*

## Betsy Dilla

*Social Mobility in Sorinsville: The Fogarty Family in South Bend, Indiana*

Much of the story of the United States of America is the story of immigrants settling and slowly gaining higher economic and social statuses. Although many people associate nineteenth immigration with the cities on the east coast such as New York, it also played a role in Midwestern cities and towns. Irish immigrants were one of the largest and most marginalized groups to come to the U.S. In South Bend, IN a neighborhood, Sorinsville, was created specifically to attract and retain an Irish workforce to build the University of Notre Dame. The University of Notre Dame Field School in 2007 with additional excavation in 2008 focused on a plot in Sorinsville originally occupied by the Fogarty family. They are an excellent example of how Irish families integrated into and rose within the South Bend community. Edward Fogarty Senior worked as a bricklayer at the university. His son, Edward Junior, would become mayor of South Bend and an influential voice in prison reform. Archival research combined with analysis of the material culture allows an examination of how immigrants and their families joined and were successful in Midwestern communities.

*Faculty Mentor: Dr. Deborah Rotman*

## Ayslinn Tice

### *Initiation into Inevitability: Gender Roles, Disciplinary Institutions, and Violence in Lesotho*

This research examines how gender roles in Lesotho are made inevitable by cultural forces, therefore condemning women to live lives of violence and vulnerability. It is based on ethnographic research completed over two summers in Mokhotlong, Lesotho, and consists of participant observation, focus groups, and individual interviews with young people who attended a local high school. I found that disciplinary institutions including the church, traditional initiation school, and formal education have dictated gender roles in Lesotho. Early missionaries removed traditional structures that allowed women leveraging power, including the custom of bride price. The church supports formal education, which promotes females' docility. Education promises greater empowerment to young women, but so rarely delivers on that promise. Formal schooling has become a locus of fear and humiliation for many young people; beatings by teachers have become increasingly common as a way to enact control over the students. These institutions have worked to ensure that females are socialized into docile and self-governing bodies, while males are pacified against challenging the state through initiation school, the principle organizing structure in traditional Basotho culture. As an unfortunate byproduct of this environment, recently initiated boys rape young women. Rape is used as a method for demonstrating their newfound manhood in the presence of their cohort. Traditional constructions of masculinity become problematic in an environment that no longer holds esteem for this form of manhood. Women are trapped in a cycle of violence and fear by these institutions, and their roles in society have become increasingly complex and tenuous, as they arise from contradictory institutions.

*Faculty Mentor: Dr. Catherine Bolten*

Funding provided by

Kellogg Institute for International Studies

## Collin McCabe and Ted Lee

*Variation in parasite burdens among semi-free-ranging Barbary macaques (Macaca sylvanus) in the Upper Rock Nature Reserve, Gibraltar*

Gastrointestinal parasite egg densities (per gram of feces) were investigated in this survey of the Barbary macaque (*Macaca sylvanus*) population at the Upper Rock Nature Reserve, Gibraltar. The original purpose of the study was to determine whether human provisioning and contact could be linked with higher parasite egg densities. Fecal samples were collected from four sites within the nature reserve, and parasite eggs were separated from feces with a Sheather's solution for identification and quantification. Evidence of one parasite was found. Eggs of the Northern hookworm, *Uncinaria stenocephala* were found at very low densities in two of the three groups which experienced tourist contact and in one which did not; in the third of the three groups with tourist contact, relatively high parasite egg densities were observed, with the mean egg density in this group being more than an order of magnitude greater than in any other site. We conclude that tourist contact has little effect on parasite burden in this population, and that a more important factor may have been the spatial structure of the sites. Additionally, no overt differences in health were noted between groups with high and low parasite burdens.

*Faculty Mentor: Dr. Agustín Fuentes*

### Funding provided by

Undergrad. Research Opportunities Program (UROP),  
Institute for Scholarship in the Liberal Arts (ISLA)  
Nanovic Institute  
President's Circle  
Center for Undergraduate Scholarly Engagement (CUSE)  
College of Science

## Briana Bauer

### *Interactions Between Male and Infant Barbary Macaques*

Male Barbary macaques (*Macaca sylvanus*) are well known for providing parental care. The purpose of the project was to observe the interactions between males and infants of two different troops (Prince Philip's Arch and Lower Middle Hill) to try to determine whether the rank of the male determined these interactions and whether there were any differences between the troops. About 40 hours of observation were completed over a period of three weeks. For each interaction, any observed behaviors were recorded, as well as the duration of the interaction. The individuals that participate the most seem to correspond to the apparent rank in the group. A number of factors support this, suggesting that those with higher rank have more access to infants, and that they tend to focus on infants of higher ranking females. This and the fact that non-mother females only made up a minority of participants suggest that males may be looking for some sort of mating benefit in the coming mating season. Infants also play an important role in tempering aggressive behavior, supported by a lack of aggressive interactions in the presence of infants.

*Faculty Mentor: Dr. Agustín Fuentes*

#### Funding provided by

Undergrad. Research Opportunities Program (UROP),  
Institute for Scholarship in the Liberal Arts (ISLA)

## **Colleen Flahive and Emma Czarka**

*From Defensive Power to Ritual Center: A Look at the Dynamic Transformations in Both Form and Use at Don Aonghasa*

Understanding the physical modification of a site over time reveals the transformations occurring within the society and culture. This poster investigates the dynamic alterations made during the three main building phases at the hillfort Dun Aonghasa on the island of Inis Mor. These phases coincide with changes in the use of the fort and its position within the surrounding landscape. Several theories have been proposed to explain the use of Dun Aonghasa over its 2,000-year occupation, including defensive, domestic, trade, and ritual purposes. Using evidence from the Discovery Programme excavation we refute prior explanations and propose that form and function evolved simultaneously at Dun Aonghasa.

*Faculty Mentor: Dr. Ian Kuijt*

## Erin Jelm

### *Fictive Kinship and Acquaintance Networks as Sources of Support and Social Capital for Mexican Transmigrants in South Bend*

Grounded in extensive literature review and primary ethnographic research in a Mexican immigrant community in South Bend, Indiana, this project explores the role of social networks as essential sources of support and generators of social capital for Latino immigrants as they adjust to life in their new home in the United States. Whereas in U.S. “American” culture, kinship is defined as biogenetic, Latino culture is characteristically more flexible with its interpretation. “Family” includes extended relatives and even close friends who are incorporated into the tightly-knit kin network via fictive kinship relationships. Immigrants cultivate these interpersonal ties, both strong (dense) and weak (diffuse), in an effort to cope with uncertainty and resource scarcity (Granovetter 1973; Wilson 1998; Foner 1999). This study analyzes how the creation of such network bonds and the development of trust-based systems of generalized reciprocity provide immigrants access to key information, resources, and emotional support as they establish themselves in their new community. The cultural traditions of *compadrazgo* (co-parenthood) and the lavish Mexican *fiesta* culture are prime exemplifiers of the dynamic systems of fictive kinship based on generalized reciprocity and mutual obligation. Ultimately, immigrants depend on the size and intensity of their social networks as they develop a sense of belonging in their new environment, thereby facilitating long-term settlement. This research contributes to a nuanced understanding of these key relationships as they function to unite the community and to replicate nostalgic traditions for Mexican immigrant in their new society.

*Faculty Mentor: Dr. Karen Richman*

## Kerry Pecho

### *Exploring the Provenance and Significance of 1998.016.005 at the Snite Museum of Art*

This project has developed from my research this semester in the Native American collection at the Snite Museum of Art. I will be presenting a critical analysis of artifact 1998.016.005, which is described as a one-note bottle flute in the shape of a gourd. This vessel was made during the Medio Period (most commonly interpreted as A.D. 1200-1450) of the Casas Grandes culture in Chihuahua, Mexico. It has been identified as Ramos Polychrome and is known to come from the Casas Grandes culture, but many questions regarding the historical context of its region and its function as a flute have not yet been answered.

My research addresses whether the culture and, specifically, the ceramics of the Casas Grandes region have been more influenced by the American Southwest or by Mesoamerica. I will also focus on the question of whether the vessel's original use was a musical instrument, or, as I believe to be true, a bottle or decorative ceramic.

Artifact 1998.016.005 from the Snite Museum of Art raises a number of questions without providing many definitive answers; therefore, my research explores these issues and seeks to clarify some of the mystery surrounding this puzzling artifact and its cultural context.

*Faculty Mentor: Dr. Joanne Mack*

## Katherine Hanson

### *From Man to Monkey: Pathogen Transmission from Humans to Gibraltar Macaques*

It is no secret that cruise ship environments encourage the spread of infectious disease. Masses of people, confined spaces, and communal dining all promote pathogen transmission among passengers. Gibraltar attracts hundreds of thousands of tourists yearly—many of whom arrive by cruise ship—in hopes of observing and playing with the Barbary macaques that inhabit the Upper Rock Nature Reserve. Frequent close contact with human visitors heightens the potential for disease transmission, introducing a conceivably harmful situation for humans and macaques alike—especially if aggression or physical contact occurs (Fuentes 2006). This study investigates the role of cruise ships in disease transmission from human visitors to Gibraltar’s macaques. Data on macaque-tourist interactions were collected at the two most popular tourist sites on the Rock, Ape’s Den and Prince Philip’s Arch, during the height of the 2009 cruise ship season. All occurrence twenty-minute samples, interaction follows, and tourist interviews were conducted. Relevant data included tourist demographics, types of interactions, and indicators of human and macaque health. Data analysis revealed a number of interesting patterns. There was a significant increase in tourists at both sites on days when at least one cruise ship was present, suggesting that cruise ships may heighten the overall risk of transmission due to increased numbers of human-macaque interactions. In addition, the incidence of illness among cruise ship passengers was significantly higher than among other tourists interviewed, and 63 of 65 cruise passengers reported becoming ill after traveling on the ship. Furthermore, 45% of visibly sick tourists interacted at very close proximity with at least

one macaque while visiting the site. These results suggest that cruise ship tourism has substantial impact on the risk of tourist to macaque pathogen transmission. In 2009, 248 ocean liners with an estimated passenger load of 376,959 persons visited Gibraltar (Gibraltar Cruise Bookings Summary, 2009). Not only have documented outbreaks among the macaque population been fatal in the past (Fa, 1989), the emergence of new highly communicable diseases such as the H1N1 virus will create new problems for prevention and treatment of outbreaks among macaques in the future.

*Faculty Mentor: Agustín Fuentes*

Funding provided by

Undergrad. Research Opportunities Program (UROP),  
Institute for Scholarship in the Liberal Arts (ISLA)

## Michael Perry

### *Developing Methods for the Application of PIXE Analysis on Mesa Verde Black-on-White Paints*

The Northern San Juan region of the American Southwest has been closely studied for its periods of dramatic social change that occurred during the 1200s. To study these past conditions, researchers have frequently relied on the examination of the pottery production since it is a well-preserved material record and accurately reflects cultural changes over time. This paper focuses on the implementation of the non-destructive technique of Particle-Induced X-ray Emission (PIXE), a method of trace-elemental analysis. PIXE compositional analysis was conducted on twenty-five Mesa Verde Black-on-White bowls found at Aztec Ruin National Monument. The goal of my research was to determine whether PIXE can effectively identify different paint recipes based on elemental composition. After completing data processing and analysis, three distinctive paint groups were identified using chlorine and manganese as distinguishing elements.

*Faculty Mentor: Dr. Donna Glowacki*

Funding provided by

Center for Undergraduate Scholarly Engagement (CUSE)  
College of Science

## Melissa Beseda

### *The Sacred Pipe in Native American Culture From the Perspective of a Pipe in the Snite's Collection*

This poster explores the significance of the sacred pipes to many Native American cultures, the features of this pipe and why this indicates that it is likely a Sioux pipe, and how the pipe became the property of a Cheyenne warrior. Pipes for smoking are one of the few material culture objects which pervaded Native American culture. The smoke from the pipe was an offering to the spirits and allowed the smokers to communicate with them. The pipe was integral to many Native American belief systems and was the most sacred object. Pipe smoking was a symbolic act of mutuality that was therapeutic for both the individual and the community. This pipe has been part of the Snite Museum's collection for decades. There has been little previous research on it. The provenance lists it as a Cheyenne pipe, which Father Lindesmith bought in the 1880s. However, this is not a Cheyenne pipe. The pipe was most likely made by the Sioux, specifically the Dakota, who lived near the Pipestone Quarry, which was the primary source for catlinite, or "pipestone." This pipe most likely came into the hands of the Cheyenne person through congenial relations between the Sioux and Cheyenne.

*Faculty Mentor: Dr. Joanne Mack*

Funding provided by  
Snite Museum

## Alejandra Gutzeit

### *Preserving the Cultural Patrimony of Peru*

By combining my academic studies in architecture and anthropology, the project I am proposing consists of studying the urbanism, architecture, and pre-Colombian archaeological sites of Cuzco, Peru and the surrounding areas, in order to prepare for my fifth year thesis project in which I will propose the design of a museum as a symbolic and physical reminder of the rich history of Peru. The work is significant because UNESCO is currently seeking to propose new and sustainable construction along the Great Inca Road (Quapaq Ñan) to revitalize a common heritage and protect the cultural customs of the communities along this road and in Cuzco itself; therefore, my project will contribute to the cultural preservation of a rich heritage, using my knowledge of sustainable and traditional architectural design principles. The cultural patrimony of these areas is currently in danger, and I will visit local libraries and museums, visit urban development offices, participate in archaeological digs at pre-Columbian sites, and conduct interviews with local intellectuals to prepare my research. Using my architectural training, I will explore the theorization of space at several archaeological sites and study the ancient as well as new constructions in these areas. By studying traditional construction methods, the relations of space on an architectural as well as urban level, and the material history of Cuzco, I will better understand how to protect and sustain the cultural value of these communities and their ancient as well as future built environment.

*Faculty Mentor: Dr. Deborah Rotman*

#### Funding provided by

Center for Undergraduate Scholarly Engagement (CUSE)  
College of Science

## **Kim Fitzgibbon and Mark Herrera**

### *The Defensive Structures of Medieval Ireland*

This poster addresses the nature of defensive structures in Medieval Ireland, specifically why particular defensive features were added to these structures and what purposes they served. In order to narrow the broad scope of the research, the poster focuses on two specific archaeological sites: Trim Castle, a large Anglo-Norman stone fortress, and Ballynalackan Castle, a typical tower house. These two defensive structures are examined in regard to the social and political climate of Medieval Ireland and why that social political climate necessitated particular defensive features in the structures of the period. The constant conflict between the Anglo-Normans and the native Irish is central to understanding defensive structures of Medieval Ireland. Conflict for land and cattle resulted in warfare which required the Anglo-Normans to construct large stone structures which were unfamiliar and intimidating to the native Irish. Specific defensive features also became advantageous on these structures such as slit windows, crenellated towers, heavy gates, wooden galleys, and batter bases. Each structure served a unique purpose for defense of inhabitants and their property from ever-combatant outsiders, either making entry into the structure more difficult in some way, or increasing the ability of those within the structure to harm the intruders.

*Faculty Mentor: Dr. Ian Kuijt*

**Ryan Lash, John O'Neill, Michael Gibbons,  
and Jim Higgins**

*Sacred and Secular Space: the Early Christian  
settlements of Inis Airc, Co. Galway, Ireland*

Combining traditional recording techniques with GPS mapping and geophysical survey technology, field-work conducted at Inis Airc, Co. Galway, has allowed researchers to partially re-construct the Early Christian landscape of this deserted island. The remains of three and possibly four separate burial grounds, a leacht, several monuments, a mill pound, a monastic cashel and clochan – along with ethnographic evidence for an enduring cult of St. Leo – suggest not only that the Early Christian occupation was more extensive and complex than heretofore recognized, but also that its material remains continued to play a crucial role in island life throughout the following centuries.

*Faculty Mentor: Dr. Ian Kuijt*

## **Brianna Muller**

*Jumping over hurdles: Barriers to healthcare access and services experienced by Latina immigrants in South Bend, IN*

Latin American female immigrants experience increased barriers to health care services in the United States. Factors such as legal status, lack of knowledge about available resources, cultural attitudes towards biomedicine, and lack of insurance and/or financial means to pay for services all contribute to the large amount of immigrant women who do not have access to a regular source of care, raising a wealth of issues related to health care and human rights. A large Mexican immigration population, comprised of legal and undocumented individuals, lives in South Bend, IN. We conducted focus groups and interviews with these women to identify their unmet health concerns, institutional barriers they encountered when trying to access health care services, and the role that cultural preferences played in these issues. Using this ethnographic data, the unique needs of the Latina population can be better understood within their cultural context. Additionally, the information gathered about barriers and access to health care services will provide a closer look at how the use or lack of use of these services affects a woman's physical and mental health in addition to her attitudes towards her body and health.

## Elizabeth Olveda

### *Commercialized Forms: The Difficulty of Identifying 19<sup>th</sup> Century Splint Baskets*

The Native American collection at the Snite Museum of Art contains five ash splint baskets by unknown basket makers. Reverend EJ Lindesmith donated three of the baskets at the end of the 19th century. The Zimmerman family of Michigan donated the other two. All five baskets date back to between 1890-1900. The relatively comparable size and decoration of the baskets indicates that all were produced as (non-functional) commodities intended for sale to tourists.

The devastating effects of European settlement on the population and economies of many Northeastern Native American tribes forced these tribes to rely on the sale of handmade crafts, including splint baskets, for supportive income. Production of these baskets peaked in the 19th century with the growth of tourism industry. Increasing commercialization and the demands of consumers for decorative Indian baskets resulted in tremendous overlap in splint basket styles and production techniques among Northeastern tribes from Michigan to Maine.

Due to the sheer amount of shared techniques used by many Northeastern tribes, attributing each basket to a certain and specific tribe would require tracing the histories of each back to the sale to or acquisition of the object by the donor. As this is no longer possible, the origins of each basket can only be hypothesized. This study proposes the possible tribal origins of each basket based on analysis of the following factors: use of dyes, style of weaving, date, basket size, width of splints, materials (included splints, sweet grass, and black thread), and known histories of the donor. Examination of each of the baskets and information on file indicates that the Zimmerman baskets are most likely the

creations of the Potawatomi or Ojibwa tribes. Examination of the Lindesmith baskets indicates that the baskets are of probable Mohawk, Micmac, or Penobscot origin, although other possibilities for each of the five baskets have not been ruled out entirely. Research on these objects have revealed the complications of the “wholesale problem” and the effects of tourism in preventing exact identification of Northeastern Native American baskets made in the 19th century.

*Faculty Mentor: Dr. Joanne Mack*

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CUSE

## Analisa Stewart

### *Immigration*

Immigration is directly related to globalization and marginalization. These topics are on the forefront of research and discussions in many academic disciplines, especially anthropology. As one of the most marginalized populations, migrants traveling across the US-Mexico border often experience suffering in a wide-variety of forms, including illness, physical violence, and cyclical patterns of structural violence that are embedded within political and economic infrastructure. This project examines the relationship between globalization and immigration, focusing on the ways in which the U.S. economic infrastructure gives rise to the demand for an undocumented working population. This ethnographic research was conducted during the summer of 2009 in which I lived and worked in an all-male safe-house for deported migrants located in Tijuana, Mexico. It is based on participant observation, individual interviews, and focus groups with the men staying in the house in order to understand the ways in which this population is excluded from society and is forced to live a liminal, undocumented existence.

## Collin McCabe and AZ Tice

### *Souterrains: Protecting Booty or Protecting Booties?*

Souterrains are underground structures often built into the landscape of forts and settlements across insular and continental northwestern Europe from the late Bronze Age to the early Iron Age. In Ireland, souterrains are often found in or around ringforts. Archaeologists debate whether souterrains were used as storage chambers or as refuges during times of conflict. Some argue that the usage of souterrains may have been dynamic, changing depending on the needs of the local community at a given time. Determining the use of these structures is important in order to understand the social climate during the Bronze and Iron Ages in Ireland.

*Faculty Mentor: Dr. Ian Kuijt*

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