

*Fourth Annual University of Notre Dame  
Department of Anthropology*

Undergraduate Research Exposition  
April 19, 2007

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.

*The following SENIORS will orally present their thesis research  
in*

*625 Flanner Hall*

**4:00-4:20 pm: Stacey Vander Hurst**

*Identity in Refuge: The Individual Experiences of Asylum Seekers in Ireland*

Advisor: Prof. Susan Blum

Quite simply, asylum seekers are individuals seeking asylum; that is, they have traveled to a country independently and have submitted applications to the state claiming legal refugee status. If the application is approved, the person is recognized as a refugee and granted the full rights and entitlements of other systematically designated refugees around the world who are accepted before arriving to the country of asylum. However, the eventual legal equality between previously recognized refugees and former asylum seeker refugees should not be confused with their social and cultural differences. Most asylum seekers exercise somewhat greater control over their travel arrangements and do not resettle with large groups of co-ethnic refugees. Using a case study of asylum seekers in Ireland, this thesis demonstrates that many asylum seekers do not collectively identify as members of the transnational communities commonly associated with refugees, challenging many assumptions fundamental to the discipline of refugee studies.

**4:20-4:40 pm: Colleen Walsh**

*Management of HIV/AIDS and Malaria in Uganda*

Advisor: Prof. Agustín Fuentes

After having conducted background research on the incidence of HIV/AIDS and malaria as well as their bio-medical, economic, and social consequences as reported through national and continent-wide statistics, I spent 10 weeks conducting participant observation research at THE CLINIC, an HIV/AIDS clinic near a major city in Uganda. The research conducted at THE CLINIC was an opportunity to see the impact of these diseases first hand. THE CLINIC, which is a locally owned and operated clinic, also offered the opportunity to see the way in which a community attempts to manage health care at the grassroots level. Through observation, interviews (with staff and patients), and participation in clinic activities, I gained a greater understanding of the difficulties facing the distribution of health care (especially to women and children) in developing countries and an appreciation for the complexity of the problems facing the people trying to deal with and overcome these barriers.

**4:40-5:00 pm: Emily Kelley**

*Identity Formation for Rwandan Asylee Women in Northern Indiana: The Impact of Legality, Employment, and Community*

Advisors: Profs. Vania Smith-Oka and Maurizio Albahari

In this study I have examined selected characteristics that are pivotal to identity and its formation for Rwandan asylee women living in Northern Indiana. In my interviews with several Rwandan women, I have focused on legal status, employment, and community as three prominent venues in which a person may identify oneself. I found that, rather than placing continuous emphasis on one identity trait, the women's identities were constantly shifting and influenced by a myriad of factors. Such factors include everything from the concrete difficulty of finding a job to the more abstract psychological dilemmas concerning cultural change. No particular trait consistently held more or less importance than others for identity formation; instead it was the absence of certain characteristic or the incongruity of past and present states of legal status, employment, and community which dominated their awareness of themselves at a given time. For each of these women, identity-defining traits were ones whose existence was threatened, rather than those which they considered stable or permanent. Furthermore, the lack of certain individual, legal, or social prerogatives is not isolated; it has an effect on other areas of identity as well. It is not only identity that is fluid, but also the characteristics that define identity. These characteristics are neither stable nor mutually isolated; each is influential over the other at various points in one's life, and, much like identity itself, constantly in flux.

**5:00-5:20 pm: Angela Lederach**

*She Says Peace: Women and the Reintegration of Child Soldiers in West Africa*

Advisor: Prof. Cynthia Mahmood

In the summer of 2006, I received a grant to travel to West Africa and research women's participation in the grassroots reintegration of child soldiers. Through the West African Network for Peacebuilding (WANEP), I met and heard the stories of women from Liberia, Sierra Leone, Cote D'Ivoire, Northern Ghana, Togo, Nigeria and Senegal. My thesis and presentation are based on the powerful and unique contributions these women have in peacebuilding and community reconciliation through reintegration. First, I will look at the gendered nature of warfare—and how the violence of patriarchy moves across borders. This section focuses on the use of systematic sexual violence as a tool of war and the need to transform the underlying gender inequality that becomes exacerbated during heightened times of violence in order to cultivate positive peace. Second I will use the leadership of women at the grassroots level in the reintegration of child soldiers as the case study for understanding how shifting gender roles in times of warfare are also aiding in transforming gender inequality. I will look both at what has made their approaches to reconciliation effective at the community level, as well as the wider transformation of gender inequality that is occurring due to their leadership roles in the Disarmament Demobilization and Reintegration process.

**5:20-5:40 pm: Cassie Papak**

*Trends in Monument Design in the South Bend Area 1860-Present; with a Focus on Cedar Grove Cemetery, Sacred Heart Cemetery, and the West Brookfield Section of Highland Cemetery*

Advisor: Prof. Mark Schurr

My goal for this research was to discover the trends in memorial design that manifest themselves in the South Bend area, with a particular focus on three cemeteries: Cedar Grove, Sacred Heart, and Highland (specifically the West Brookfield section). Monument choice is primarily affected by personal tastes and beliefs and advances in technology. In order to study changes in memorial design over the years, I visited the three cemeteries and recorded the colors, shapes, sizes and other distinguishing details of the monuments found there. Besides noting evidence of the Victorian-era 'beautification of death' movement in this area, I discovered modern-era trends in the decorative motifs featured, the formatting of written information present, and the amount of personalization and visibility sought through monument design. I also researched the demand for 'pre-need' and flush memorials and concluded that there is currently a growing desire to maximize the imagination and technology available in order to make sure the function of a grave marker – to keep a beloved deceased's memory alive – is maximally fulfilled.

**5:40-6:00 pm: Bryan Hambley**

*Unraveling the Chains: A Study of Barriers to AIDS and Tuberculosis Healthcare in Cambodia*

Advisor: Profs. Vania Smith-Oka and David Ruccio

Cambodia is one of the poorest countries on earth. The nation's infrastructure and government services have yet to recover from Pol Pot's genocidal rule in the late 1970s. This lack of services is readily apparent in the nation's health system, which has allowed the highest HIV prevalence in Southeast Asia and one of the highest tuberculosis rates in the world. Cambodian patients with tuberculosis find it difficult to obtain quality care, while individuals suffering from HIV/AIDS see enormous variations in available services throughout different parts of the country. Many officials at international organizations disagree about what barriers prevent access to care. This disagreement leads aid organizations to push uncoordinated projects without clear targets. This thesis sets out to understand the barriers to AIDS and tuberculosis care in Cambodia. From that understanding, international organizations should engage in more targeted and collaborative projects.

Senior Anthropology Thesis writers not present:

**Ellen Luecke**

*Intergroup variation in stable isotope ratios reflect anthropogenic impact in the Barbary macaques (*Macaca sylvanus*) of Gibraltar*

Advisor: Prof. Agustín Fuentes

This study utilizes stable carbon and nitrogen isotope analysis to examine intraspecific variation in diet between five groups of Barbary macaque, *Macaca sylvanus*, in the Upper Rock Nature Reserve, Gibraltar. Analysis of hair from 135 macaques showed significant differences in  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  values between a group with negligible tourist contact and groups that were main tourist attractions. Because no overt physiological or substantial behavioral differences between the groups have been observed feeding ecology is the most likely cause of any differences in stable isotope ratio. Unregulated provisioning by tourists and Gibraltarans seems a likely source of dietary variation between groups. Additional observational data provides a list of non-provisioned foods for the macaques which, when compared with ecological information from other sites, may serve a vital role in the reintroduction of *Macaca sylvanus* to suitable habitats in North Africa. Stable isotope analysis and observational data facilitate a deeper understanding of the feeding ecology of the Barbary macaques important to the conservation of the species.

**Meg Towle**

*The Socio-cultural and Logistical Implications for Preventing Mother-to-Child HIV/AIDS Transmission in Rural Lesotho*

Advisor: Prof. Daniel Lende

This project focuses on the critical need to understand the contextual nature of preventing mother-to-child transmission (pMTCT) of HIV/AIDS in rural Lesotho. Research focused on the impact of cultural meanings and structural violence on rural Basotho women's socio-medical. In a qualitative exploration of the cultural, structural, and economic settings in the Mokhotlong district, this paper analyzes the socio-cultural and logistical implications for the four measures of comprehensive pMTCT programming: educational outreach, voluntary counseling and testing (VCT), antiretroviral (ARV) interventions, and safe infant feeding. It concludes that localized, participatory approaches to pMTCT will best incorporate community contexts and create culturally appropriate and compelling interventions. In Mokhotlong's communities, these models would mirror Farmer's (2004, 2001) use of clinical liaisons in rural treatment delivery, hinging on the existing community health worker (CHW) network.

*The following SENIORS will present their thesis research via posters:*

**Alicia Cooper<sup>1</sup>, Jaime Ullinger<sup>2</sup>, D.S. Coleman<sup>3</sup>, Sue Sheridan<sup>1</sup>.**

<sup>1</sup>Dept. of Anthropology, University of Notre Dame, <sup>2</sup>Dept. of Anthropology, Ohio State University, <sup>3</sup>Dept. of Geological Sciences, University of North Carolina—Chapel Hill.

*Assessing mobility patterns for the Early Bronze Age community of Bab edh-Dhra' using radiogenic isotope analysis of human enamel.*

Isotopic analysis of enamel was conducted as part of an investigation of human mobility for the Early Bronze Age community of Bab edh-Dhra' (3000-2300 B.C.E.) located in modern-day Jordan. Enamel from sixteen second molars was analyzed for radiogenic strontium isotope content (<sup>87</sup>Sr/<sup>86</sup>Sr). Two faunal samples were also examined to provide a local and temporal chemical baseline. Strontium is incorporated into the hydroxyapatite crystal due to its chemical similarities to calcium. Different geographic regions have distinct geochemical profiles with relatively unique <sup>87</sup>Sr/<sup>86</sup>Sr isotopic ratios. Thermal Ionization Mass Spectrometry (TIMS) was used for this phase of the analysis. The isotopic data, combined with cranial non-metric studies of this collection, demonstrate considerable homogeneity among the group. Archaeological evidence and mortuary practice are indicative of the development of a settled, urban culture at Bab edh-Dhra' where no previous settlement has been identified. The relative homogeneity of the representative sampling, though, does not offer evidence of extensive human migration into the growing community. As part of a larger examination of Near Eastern human mobility patterns, radiogenic strontium isotope analysis of enamel was also performed on upper left third molars from the Byzantine monastic community of St. Stephen's in Jerusalem (5<sup>th</sup>-7<sup>th</sup> C.E., n=22) and from remains of Tel Dothan in ancient Palestine (1500-1000 B.C.E., n=24). The three Near Eastern sites demonstrated comparable <sup>87</sup>Sr/<sup>86</sup>Sr ratios, suggesting a trend of regional stability.

*Faculty Mentor: Prof. Sue Sheridan*

**Sheena Ketchum<sup>1</sup>, Paulina Ledergerber<sup>2</sup>, and Amelia Logan<sup>3</sup>**

<sup>1</sup>Dept. of Anthropology, University of Notre Dame, <sup>2</sup>Smithsonian Institute, <sup>3</sup>National Museum of Natural History

*Analysis of Decorated Ceramics from Morona-Santiago, Southeast Ecuador*

This project is an analysis of the prehistoric ceramic collections excavated at two sites in Morona-Santiago, Southeast Ecuador. The analysis showed that the collections were made with very coarse grit and made with very diverse methods of decoration; there is also a high percentage of corrugated sherds present. These findings suggest that there was more than one culture using the sites and/or that the culture or cultures that constructed the vessels were not specialized at manufacturing pottery.

*Faculty Mentor: Prof. Mark Schurr*

**Sheena A. Ketchum, Mark R. Schurr, and Rex Garniewicz (Indiana State Museum)**

*A Test for Maize Consumption by Fauna in Late Prehistoric Eastern North America*

Several hypotheses suggest that pest species consumed corn and were then eaten by late prehistoric populations. This could lead to over-estimates of amounts of maize that were directly consumed in prehistoric diets. Definitive evidence of prehistoric corn consumption by animals would also shed new light on the practice of Mississippian agriculture. To test these hypotheses, stable carbon isotope ratios of collagen from deer and raccoon bones from the Late Archaic Indian Knoll and Upper Mississippian Angel sites are compared. The stable isotope ratios are used to determine the amount of maize, if any, in Middle Mississippian faunal diets.

*Faculty Mentor: Prof. Mark Schurr*

**Paige N. Hamilton and Sheena A. Ketchum**

*Soft Hammer Core Reduction*

Soft hammer core reduction utilizes soft, elastic material such as bone or antler as a hammer, or billet, with which to produce tools. The flintknapper gains greater control over the flake removal process because this technique causes the stone to tear, instead of shattering, which occurs during hard hammer percussion. Soft hammer percussion has been used since the Lower Paleolithic, when Homo erectus was producing the Acheulean stone tool industry. Current research suggests a worldwide geographical distribution of this technique.

*Faculty Mentor: Prof. Ian Kuijt*

**Paige Hamilton**

*The White Plague: Skeletal Evidence of Tuberculosis*

Literature searches on the prevalence of tuberculosis lesions in 20th Century skeletal remains have revealed a disparity in expression of lesions on the ribs. This study intended to investigate the incidence of skeletal evidence of tuberculosis to clarify inconsistencies in the reported literature. A sample of 150 individuals was randomly-selected from three cause of death subgroups: pulmonary tuberculosis, non-specific tuberculosis, and non-tuberculosis. Results from this study show that a significant number of individuals with pulmonary tuberculosis (66%) and with non-specific TB (62%) displayed rib lesions, while only 16% of those dying from non-tuberculosis demonstrated this lesion type. Spinal lesions were also evaluated in this study. The frequency of both rib and spine lesions in individuals dying from pulmonary TB and non-specific TB was 38% and 36%, respectively, while only 8% of non-tuberculosis displayed both lesions. Although other possible diseases may respond in a similar way, the presence of lesions on the visceral side of the ribs and in conjunction with lesions on the anterior body of the spine would be highly diagnostic for an individual suffering from tuberculosis.

*Faculty Mentor: Prof. Mark Schurr*

**Grace Samolczyk<sup>1</sup>, Tyler Shugg<sup>1</sup>, Jaime Ullinger<sup>2</sup>, Don Ortner<sup>3</sup>, and Sue Sheridan<sup>1</sup>**

<sup>1</sup>Department of Anthropology, University of Notre Dame, <sup>2</sup>Department of Anthropology The Ohio State University, <sup>3</sup>Department of Anthropology, National Museum of Natural History, Smithsonian Institution.

*'Put your shoulder into it': Upper limb pathology at a Byzantine Jerusalem monastery*

As part of a large study reconstructing activity patterns in a Byzantine (5<sup>th</sup> – 7<sup>th</sup> c. AD) monastery, the upper limb bones from St. Stephen's monastery in Jerusalem were examined for paleopathological indicators. Detailed analysis of the lower limb bones, combining biomechanical and pathological evidence with the historical/liturgical record, permitted the reconstruction of a biocultural model of repetitive genuflexion (200+ times per day) by the members of this community. Upper limb involvement was indicated as well, relating to the use of the arm to push up from a squatting position and/or balance while genuflexing. For this project, the shoulder and elbow joints [including the glenoid fossa (n=71), humeral head (n=51), trochlea (n=37), capitulum (n=34), radial head (n=55), and olecranon (73)] were examined for arthritic lipping, eburnation, and the presence of osteophytes. The capitulum was the most affected landmark, with 93.3% of the right and 89.5% of the left side displaying characteristics of osteoarthritis. Additionally, there was no significant difference in the presence of osteoarthritis between the left and right sides of each landmark, except for the humeral head (p=0.042), in which the right side showed a much greater incidence of lipping. Periosteal reactions of the St. Stephen's humeri, radii, and ulnae provided a survey of health status, and demonstrated little trauma to the upper arm bones from the Byzantine monastery. This research was supported by the National Science Foundation (SES#0097568) and the University of Notre Dame's Institute for Scholarship in the Liberal Arts.

*Faculty Mentor: Prof. Sue Sheridan*

### **Colleen Walsh**

*Management of HIV/AIDS and Malaria in Uganda, an ethnographic study*

After having conducted background research on the incidence of HIV/AIDS and malaria as well as their bio-medical, economic, and social consequences as reported through national and continent-wide statistics, I spent 10 weeks conducting participant observation research at an HIV/AIDS clinic near Jinja, Uganda. The research conducted at St. Francis was an opportunity to see the impact of these diseases first hand. THE CLINIC, which is a locally owned and operated clinic, also offered the opportunity to see the way in which a community attempts to manage health care at the grassroots level. Through observation, interviews (with staff and patients), and participation in clinic activities, I gained a greater understanding of the difficulties facing the distribution of health care (especially to women and children) in developing countries and an appreciation for the complexity of the problems facing the people trying to deal with and overcome these barriers.

*Faculty Mentor: Dr. Agustín Fuentes*



*The following SENIORS will present their independent research via posters:*

**Steve Cooper and Lisa Lawson**

*An Investigation into the Attitudes of Students and Educators towards Sex Education*

The aim of this study was to determine how college-age students and faculty regard formalized sex education from grade school to college. Members of both groups were interviewed regarding the nature and availability of sex health information, services, and resources, such as information on STDs and HIV/AIDS, contraception, obstetrics and gynecology, and counseling. In general, students receive the bulk of their sexual health knowledge prior to college, with family and personal physicians being cited as primary sources of information. Depending on the size and nature of the university attended, students had differing levels of satisfaction with the resources their university provided. The faculty members spoken to took the subject matter seriously and felt their coverage was comprehensive, but they also felt that many of the students took the class less seriously and had varying comfort levels with the subject. After considering the responses of the two groups, if education system wishes to have a greater and more effective impact on students, then amendments to the curriculum and teaching methodology can be made to make the classroom more integrative with the needs and interests of the students.

*Faculty Mentor: Prof. Vania Smith-Oka*

**Daralee Hughes and Eric Ingulsrud**

*Frequency and Reasons for Emergency Room Use by Women*

National data indicates that women have a higher frequency of emergency room visits. Research has indicated that biology interacts with sociocultural factors to produce gender differences in health and illness. Due to care-giving responsibilities women are more closely linked to monitoring the health of themselves and their family contributing to women's consumption of more health products and services than men. Women are socialized to acknowledge bodily signs and symptoms and as a function of learned behavior patterns, women perceive a greater need for care more readily than men. Based on this information, this study investigates the frequency of emergency room use by women at Saint Joseph Regional Medical Center and their reasons for utilizing emergency room care.

*Faculty Mentor: Prof. Vania Smith-Oka*

*The following students will be presenting their various independent research projects via posters:*

**Students in Museum Anthropology Exhibit in Flanner Cases**

The students in the course Museum Studies for Anthropologists produced a museum exhibit, using items available from the Department of Anthropology. Each used a shelf in the display cases on the sixth floor of Flanner Hall as their exhibit space. Each student focused upon a theme or question illustrated by the objects in their display. They each conducted the research necessary to write the label and didactic copy and designed the display the arrangement of the display shelf.

*Faculty Mentor: Prof. Joanne Mack*

**Students Design Professional Exhibits For Anthropology Class and the Snite Museum of Art**

Eight students from Anthropology, American Studies, and Art participated in a Fall 2006 course entitled "Native North American Art" taught by Dr. Joanne Mack.

The culminating activity for students in "Native North American Art" was to create a small exhibit to be displayed at the Snite Museum. Each student chose an object or objects from the Snite's collection and developed an exhibit. Each student had a focus or theme based on Native American art history. They each conducted the research necessary to write the label and didactic copy; worked with the designer to choose a case and risers for their exhibit; and arranged the object or objects in the case.

*Faculty Mentor: Prof. Joanne Mack*

**Rebecca Balhoff and Rebecca Mosca**

*The Reality of Teen Pregnancy in Catholic Schools*

Our research focuses on teen pregnancy, specifically in local area Catholic schools. We aimed to learn about available resources for pregnant girls and their boyfriends, as well as how the schools collaborate with outside centers to help these students make decisions about their lives and their bodies. Since pregnancy affects the students' lives, goals, relationships, and perceptions of the structures and people around them, we researched specifics on how they handled the situation, and whether they felt like they had choices and options for their pregnancy and their educational goals. We inquired how their relationships have changed, as well as their attitudes toward their bodies, fertility, and contraception. We conducted the majority of our research through interviews. Those interviewed included the guidance departments at several local area Catholic high schools, several of teen parents who attended these schools, and some counselors at the Women's Care Center. Through this process, we learned how collaboration between institutions takes place on behalf of the students, and how teen parents feel about their bodies, agency, choices, and goals.

*Faculty Mentor: Prof. Vania Smith-Oka*

### **Katie Begerow and Kyle Bocinsky**

#### *The Oldowan Industrial Complex: form, function, and findings*

Technology plays a large role in our culture, and evidence of the first lithic technologies ever used appear at around 2.5 million years ago in the Ethiopian Rift Valley. Known as the Oldowan Industrial Complex, named for the Olduvai Gorge locality, the simple technology was comprised of slivers and stumps of stone, hammer stones, and anvils that have left their marks in bones as a result of butchery. The hominids that made these tools employed the bipolar reduction method to remove flakes, which were then shaped using rudimentary hard-hammer reduction. In this poster, we look review the Oldowan Industrial Complex, including its context, utility, and production; we also note some key excavations in eastern Africa that have led to greater understanding of this earliest form of hominid lithic use.

*Faculty Mentor: Prof. Ian Kuijt*

### **Mary Boyer**

#### *El Proyecto Marcajirca: Discovering Occupational History of a Pre-Hispanic Village*

This project seeks to elucidate the lifestyle of pre-Hispanic populations in the Puccha Valley of Peru. The area of research is in the ravines of Huaritambo at the Marcajirca site. Beginning in 1997, surveys focused on determining the patterns of settlement and chronology of this site. Excavations have been undertaken since 2004 on the funerary sector, with ancestral cults as the main foci of investigation. In the 2006 season, through analyzing artifacts in the sectors surrounding *las chullpas*, or tombs, this project will investigate how funeral displays and evidence of residential life reflect the social status of pre-hispanic individuals in Marcajirca, adding to the project goal of exploring hierarchical structures within ancestral cults.

*Faculty Mentor: Prof. Meredith Chesson*

### **Ale Breuer and Andrea Mondragon**

#### *Examining the lives of African American Children in Low SES Families?*

The objective of our study is to analyze the wellbeing of African American children of low socioeconomic status in South Bend, Indiana. Previous research suggests a direct correlation between low socioeconomic status and poor health outcomes in African American families. Furthermore, there have been consistent findings that demonstrate that children residing in impoverished environments sustain an increased risk of experiencing emotional, behavioral, and academic difficulties. In our study we interviewed 10 African American children ranging in age from 7-11 about their home life, schoolwork, motivations, aspirations, and overall health. In addition, we interviewed their director, along with her assistant, of their local tutoring program. Our results indicate that African American children who live in a low nurturing, single parent environment develop low self-efficacy. Consequently, this acquired sense of low self-efficacy negatively manifests itself in their home life, educational achievement, and their perceived sense of self.

*Faculty Mentor: Prof. Vania Smith-Oka*

## **Meagan Conway**

### *Williamsburg Architecture: The Colonial Transition to Permanency*

One of the major issues in Chesapeake historical archaeology is the transition from impermanency to permanency in colonial Chesapeake architecture. The development of the architecture in Williamsburg, Virginia and how it came to be built out reflected a constant change in housing techniques that was unique in its origins and formation in the early colonies. The Ravenscroft site in Williamsburg provided direct evidence of this transition in the colonial capital, as the area transformed into a planned town designed to exert a degree of imperial control over the Virginia colony. The site itself underwent many ownership changes throughout the colonization of Virginia, making the material evidence there varied and diverse, depending on the occupants at the time. Several theories about life in the area were drawn from the evidence of impermanency, as the transition to permanency illustrated a definitive change not only in the culture of the settlers but also in the social situation of the inhabitants of the capital. The small cellar on the property was the particular focus of research of the material changes in life in the New World, as the combination of previous knowledge and invention was particularly exemplified in this aspect of the Ravenscroft site. The increasing stability of social order in the colonies was reflected in this changing architecture, as repair and replacement changed into something much more organized and structured in the early years of the colonies.

*Faculty Mentor: Prof. Deb Rotman*

## **Sophia Cortez, Kerrie Pezzo, and Paul Spadafora**

### *Trends in Use: Demography, Status, and Ideology within the Cedar Grove Cemetery: An Analysis of Sub-Plot F*

The use of a Cemetery across time can provide valuable information about, not only the ritual and practice associated with the dead, but also how these practices reflect the living that occupied the surrounding area. 96 gravesites from Cedar Grove cemetery plot F were examined for a variety of factors (age, death date, price index of marker, name, etc.). This data set was analyzed statistically and subjectively. Statistical analysis suggests that the only trends to carry across time are Material of marker and price index of marker, and material of marker and date of death. Subjective analysis demonstrates that the markers in the Cedar Grove cemetery likely belong to somewhat patriotic Christians in the community. The epitaphs and the shape of the markers offer some insight into the values of the individuals, how those values change over time, and how the dead may have wanted to be remembered.

*Faculty Mentor: Prof. Deb Rotman*

## **Dan Djondo and Emily Owens**

*The influence of gender and social and cultural roles in regards to male and female initiation into using habits, reasons surrounding usage, treatment, and societal perceptions of male and female substance abuse*

The research investigated how gender influences the way in which individuals, as male or female, within specific social and cultural roles, approach and cope with substance abuse issues. It examined substance abuse in regards to one's initiation and reasons surrounding usage, treatment, and perceptions of substance abuse from both the male, female, and family perspective. Eight interviews were conducted – six informants were male and two were female – with past and current substance abusers at Imani Unidad and AIDS Ministries in South Bend, Indiana. Additionally, to gain a view of how gender roles influence drug use from an objective perspective, two interviews were carried out with substance abuse treatment program employees in South Bend. A wide range of variation existed in the answers between male and female informants. Generally, female informants spoke of emotional issues and spousal relationships as enablers to their drug use, as well as the responsibilities and challenges as mothers that affected their using habits; men, on the other hand, often did not mention personal relationships as the root cause of drug abuse. Moreover, both social workers and all female informants described a severe societal stigma against drug-using women compared to drug using men, while both male substance users reported that society viewed all drug abusers equally, regardless of gender. On the other hand, nearly all informants reported that regardless of how much support was offered from family and/or friends, the decision to seek help was ultimately in the hands of the individual. There were mixed reactions concerning coed versus separate treatment for females and males. Although the results reflected many traditional attitudes regarding the effect of gender roles on substance abuse, they are hardly definitive due to the small size of the informant pool. Moreover, the project lacked a definitive aspect of patient observation, as no nuclear family interaction or spousal-interaction observation occurred in houses with substance abusers. In future studies, expanding the informant pool and incorporating a familial observation aspect into the study would help to further shed light onto the topic.

*Faculty Mentor: Prof. Vania Smith-Oka*

## **Matt Gibson, Jake O'Neil, Anish Patel, Kyle Strickland**

*Changing Family Relations and Ideology in Cedar Grove Cemetery*

In this study, we aimed to gain an understanding of shifting familial values and relationships through time as demonstrated by differential burial arrangements. Though these changes were touched on by Randy McGuire (1988) in his study of Broome County cemeteries, possible reasons are not addressed. We sought to clarify differences across time periods and infer possible causes for these differences, hypothesizing that there would be a shift from family burials to burials more focused on matrimonial relationships and this would reflect changing gender roles within marital relationships and changing family ideology. Data was collected from the northeast section of Cedar Grove cemetery on the campus of the University of Notre Dame, focusing only burial plots including more than one family member. Our results showed a definite shift from more family burials to more burials of married couples. We suggest that patterns of burial changed as different roles within the family unit and society were emphasized, most importantly the roles of women.

*Faculty Mentor: Prof. Deb Rotman*

## **Bonnie Fullard**

### *The effect of tourist attitude and behavior on Human-macaque interactions in Gibraltar*

Understanding human-monkey interactions involves a complex set of evolutionary, cultural, and ontogenetic factors. At the Upper Rock Nature Reserve in Gibraltar, most interactions involve tourists who do not typically encounter monkeys, creating an added potential risk to both humans and macaques. It is thus important to understand tourists' attitudes toward both interaction and the macaques in general. This study combines personal interviews and observational data from two summers at Gibraltar, analyzing various factors that affect the dynamic interaction patterns. There are differences between sexes in both attitude toward interaction and observed rates of interaction. While males and females reported equal rates of interaction, males were observed to interact more often than females. This discrepancy is explained by the tour guides and taxi drivers, who are predominantly male and account for a large percentage of interactions. Awareness that the Rock is a nature reserve had no significant effect on either attitude toward or rate of interaction. Achieving a greater understanding of tourists' attitudes and behavior can provide important insight for management and conservation strategies, as well as preventing harm to either humans or macaques.

*Faculty Mentor: Prof. Agustín Fuentes*

## **Kathryn Keegan**

### *Chew on This: Dental Calculus and Interproximal Grooves at St. Stephen's Monastery*

Dental calculus and interproximal grooves were analyzed on a collection of teeth from a Byzantine (5<sup>th</sup>-7<sup>th</sup> C) monastic community in Jerusalem as part of a larger biocultural diet and hygiene reconstruction. Dental calculus was scored using the method described by Buikstra (1994) adapted from Brothwell (1981). Interproximal grooving was scored as absent or present. Results show a high degree of light calculus on the buccal and lingual surfaces of the teeth, which may result from protein consumption or good oral hygiene. The complete lack of interproximal grooves in the collection corresponds with previous studies, which have shown a low degree of carious lesions and overall good health. Past stable isotope analysis has shown a concentration of C3 plants in the diet with adult males consuming considerable animal protein (Regan et al 2005). Although historical texts for this region are clear about an aesthetic, vegetarian lifestyle for monastic communities, analysis of the bones and teeth indicate the monks were consuming fewer highly fermentable carbohydrates and more animal protein than texts suggest.

*Faculty Mentor: Prof. Sue Sheridan*

**Ellen Luecke**

*Let's Talk About Sex: The Role of Gender in Sex Education*

Gender roles, expectations, and stereotypes are involved in how individuals approach sex. As the responsibility for sex education has shifted from the home to the classroom it is important to consider how the 'facts' of life are presented and interpreted differently by males and females. Many programs separate male and female students for sexual education classes with many results for the participants, both positive and negative. My research investigates the perspectives of educators and literature review of student opinions on the way that sexual education is taught in the classroom.

*Faculty Mentor: Prof. Vania Smith-Oka*

**Lindsay Martin, Andrea Dreyfuss, Sara Putnam, and Pedro Engel**

*Latino HIV/AIDS Attitudes*

The Hispanic community within the U.S. has experienced rising a rising incidence of HIV/AIDS, and the culture and socioeconomics of this group has an important influence on transmission of and reaction to infection. In our study, we interviewed HIV positive males from Mexico, most uninsured, undocumented, and/or unemployed, and explored their unique experiences dealing with their illness within their cultural context. We found a significant impact of the *machismo* attitude which simultaneously increases the risk of transmission and creates a stigma against those who are infected. Heterosexual male promiscuity is generally encouraged; however there is a taboo against sexual education within Hispanic families and in Latin American schools. It is difficult for Latino men to be accepted by their families and communities once they know they are HIV positive due to conservative Catholic views on sexuality prevalent in Latin culture. In addition, a lack of health insurance and/or legal documentation complicated access to proper care and lessened quality of life.

*Faculty Mentor: Prof. Vania Smith-Oka*

## **Nicholas Maurice**

### *Diabetes in Context: Social Solutions for an Individualized Illness*

Type 2 Diabetes, a metabolic disorder characterized by high blood sugar, has become an epidemic in the United States, disproportionately affecting economically disadvantaged individuals and ethnic minority groups. This poster aims to examine the effect of the disease on impoverished uninsured male diabetes patients at a local South Bend clinic, where patients are provided discount medical treatment, counseling, and prescription drugs consistent with the standard biomedical approach. However, this approach to diabetes treatment and prevention rests on an individualistic model that stresses a strict regimen of personal self-control and, in practice, ignores social and structural factors. The male patients interviewed have adopted this medical discourse, but often practice “non-compliant” or hybridized treatment routines. Moreover, patients with diabetic friends and/or family members seem to feel “in control” of their illness and claim to be “healthy,” suggesting they may have found social solutions supplanting the biomedical paradigm. These observations support a redefinition of diabetes within a wider social context to provide a treatment regimen more consistent with patients’ needs.

*Faculty Mentor: Prof. Vania Smith-Oka*

## **Mary F. McMullen and Teresa B. Kolf**

### *Gender Dynamics of Healthcare Teams*

This project examined various ways gender affects the formation of healthcare professionals and the delivery of healthcare in the hospital setting. Nurses, physicians, technicians, as well as nursing and pre-med majors were interviewed so as to gather a wide range of perspectives on healthcare team dynamics. Results were mixed but our data suggest a positive trend in healthcare education and delivery, possibly due to the increase of women healthcare professionals in recent years.

*Faculty Mentor: Prof. Vania Smith-Oka*

## **Laura Monczunski**

### *Transitions in Living Situations for the Elderly*

This project examines how elderly men and women experience the transition from living in their own homes to living in a retirement community. The study was done in the independent living portion of a retirement community, which also included assisted living, healthcare, and Alzheimer’s care sections. The focus in this research is on the changes the elderly undergo when facing this late-life transition, and how particular constructs of gender as well as family and economic structures affect the experience. Three male and three female residents were interviewed in order to investigate issues such as autonomy, quality of living, and overall well being when individuals were on their own versus after they became resident’s of the retirement community. To get acquainted with the community, the researcher spent time with these individuals in their apartments and common areas. The findings of this study are contextualized through comparisons with the experience of elderly in other cultures.

*Faculty Mentor: Prof. Vania Smith-Oka*



## **Meghan Murphy and Courtney Carroll**

### *Barriers to Care: An Investigation of Continuing Care for HIV/AIDS Patients in South Bend*

What prevents HIV/AIDS patients in South Bend from accessing and receiving the care and support that they need? This investigation, through the collaboration with community partners AIDS Ministries/AIDS Assist and Debra Stanley of Imani Unidad, provides insight into the multi-dimensional and interdependent barriers to care for patients in South Bend. Most HIV+ patients' efforts to secure care are impeded by a combination of barriers, making care coordination especially complex. The most prominent barriers are focused on and categorized in this project, but these four groupings are by no means discrete, as many similar themes arise in each category. (1) Lack of resources greatly compromises an individual's ability to access care effectively. (2) Issues with patient adherence and non-compliance are often the most challenging barriers for care coordination. (3) Stigma has a profound impact on individuals' access to and maintenance of sufficient care and support. (4) Gender plays a significant role in shaping an individual's experience as HIV+, both medically and socially. The information compiled in this investigation provides a starting point for cultivating possible solutions, based in community initiatives, to surmount these barriers to care, enabling and empowering HIV/AIDS patients in South Bend to receive the care that they deserve.

*Faculty Mentors: Prof. Daniel Lende & Prof. Vania Smith-Oka*

## **Menaka Nadar**

### *Assessing the American technological view of birth: an exploration of attitudes of female Mexican immigrants towards vaginal and cesarean delivery*

With the decreasing numbers of women choosing to give birth outside of hospitals and the rise of cesarean deliveries in the US, including elective cesareans, I was interested to see if Mexican women who had only been in the US for a short period of time had begun to adopt our technological view of birth. I was specifically interested in their views on vaginal vs. cesarean delivery, their preference, and what factors affected these views. I interviewed 5 Mexican mothers who had recently delivered (2 cesarean, 3 vaginal) who had been in the US for 5 years or less. I also interviewed doula/interpreters who had also been with them through the birthing process, three nurses from the childbirth unit, and three obstetricians, to get a different perspective, and also to see others' perceptions of these women. Interviews with both recent mothers and healthcare providers indicated a need for the healthcare system in general to be more supportive of and conducive to women giving birth naturally. This would allow for more Mexican women to achieve the vaginal birth they prefer, and also, fewer women in the US, of all cultural backgrounds, would face the complications and increased risks associated with cesareans unnecessarily.

*Faculty Mentor: Prof. Vania Smith-Oka*

**Caroline Nally, Stephanie Pelligra, Katie Carroll, and Casey Bouskill**

*Understanding the Role of Humor as a Coping Mechanism in Breast Cancer Treatment*

This poster will present data obtained by researching the role of humor in breast cancer recovery. Given the known stresses of being diagnosed with breast cancer and receiving subsequent treatments, humor has been identified as a coping mechanism. In order to analyze this under-researched topic, women who were diagnosed with, being treated for, and recovering from breast cancer were contacted to participate in open ended interviews, questionnaires, and participant observation (n=19). The experiences these women had during their journey with breast cancer were recorded and themes were extracted. The most prevalent included the use of humor as a means to control the uncontrollable and the boundaries of this humor. By creating boundaries, women were able to decide who to laugh with and what specific aspects of their experiences were funny, which were found to be unique for each woman. Additionally, this empowerment gave the women control of a specific part of their lives, which was crucial considering everything that was uncontrollable to them, including chemotherapy, surgeries, loss of support, and emotional depression. While the ultimate goal of this research was to identify and evaluate these themes, the data collected is also being used to create applied outcomes for further development of this under-researched topic. Specifically, a book of humorous experiences of these women, entitled Underneath it All, has been written and will be shared with those who have breast cancer, but have not yet been able to find a way to employ humor as a coping mechanism.

*Faculty Mentor: Prof. Daniel Lende*

**Laura Plis and Ian Kuijt**

*The Cultural Landscape of the Omey Island region: Heritage assessment through aerial photography*

Occupied for many thousand years, the Omey Island region exists as a cultural, economic and religious focus in western Connemara, Co. Galway. With occupational ruins from multiple periods of time, many covered by sand dunes, the extensive archaeological and architectural remains on Omey Island and Inishark are both remarkably well preserved and testify to the active use of this rural area at different points of time. Employing infrared air photography to identify, record, and assess observable heritage resources we have been able to develop new understandings of field systems, property lines, abandoned residential areas, and burial areas. Other interesting features identified to date include Bronze Age field system, and extensive evidence for changing systems of land ownership from the 17<sup>th</sup> to 19<sup>th</sup> centuries. This research has improved our understanding of this poorly known cultural landscape, resulting in a valuable database to understand the major periods of occupation in the region.

*Faculty Mentor: Prof. Ian Kuijt*

## **Lisa Rauh and Maggie Schramm**

### *Biological Conception: Undergraduate Perceptions of Scientific Objectivity*

In her essay entitled *The Egg and the Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles*, anthropologist Emily Martin hypothesized that culture, particularly gender stereotypes, might influence the discoveries and descriptions of biological science. In an attempt to further investigate her claims, we conducted interviews with eight juniors at the University of Notre Dame. This study sample included an equal number of male and female students from a wide variety of majors and educational backgrounds. The interviews sought to determine how this educated group of people viewed science and in particular how they understood the processes of conception. While a majority of the students viewed science as an objective pursuit, nearly all of them had gender-biased understandings of conception. Furthermore, when brought to their attention, most of the students viewed these prejudices in science as indicative of larger problems and agreed that the topic warranted further investigation. As a possible solution for the future, this study concludes that a more diverse and inclusive community of scientists is required to eliminate the prevalence of a cultural or gender bias.

*Faculty Mentor: Prof. Vania Smith-Oka*

## **John S. Richards and Marti Mirandola-Mullen**

In this poster, we will be analyzing the Levallois technique, a subset of Mousterian lithic technology that was prevalent in Western Europe during the Middle Paleolithic. This particular technique allowed the knapper to predetermine the shapes of the desired flake to a greater degree, while requiring considerably greater skill and preparation time. We will spend a brief time considering the historical and geographic contexts of this particular technique, and then we will proceed to explain the actual process of making tools in this particular style. Specifically, this will entail describing the shaping of a desired core, lineal and recurrent flaking strategies, and other particular features associated with Levallois.

*Faculty Mentor: Prof. Ian Kuijt*

## **Dan Ryan and Mary Boyer**

### *Bipolar Reduction: The Science of Smashing*

Bipolar reduction is considered one of the earliest techniques of stone tool making. It is believed to have emerged in the early Stone Age or Paleolithic period, around 2.5-1.5 million years ago. The bipolar reduction technique is employed when attempting to flake a stone that is rounded, of a material difficult to break or has angles greater than ninety degrees. Essentially, the core is placed on a hard surface then its highest point receives a direct blow from a hammer stone. This poster examines the antiquity and usefulness of bipolar reduction, while also reflecting on classroom laboratory experiments with this technique.

*Faculty Mentor: Prof. Ian Kuijt*

**Monica Selak, Katie Fischl, and Michelle Lewis**

*Knowledge and Perceptions of Women's Health Issues at Notre Dame*

This research project examines the ways through which knowledge and perceptions of women's health issues have been shaped on the campus of the University of Notre Dame. Specific topics studied include women's knowledge of women's health issues, the level of student exposure to women's health issues at the University of Notre Dame, the level of comfort students maintain in discussing such issues, knowledge and opinions of available resources at University Health Services, and any relevant personal experience with women's health issues. To gather data and information on these topics, we reviewed several professional papers, distributed a student survey to three women's residence halls, conducted interviews with current University students, and conducted interviews with an administrator and healthcare provider at University Health Services. The results indicate a "missing link" of information and knowledge distribution between the University and student population to which we offer possible solutions.

*Faculty Advisor: Prof. Vania Smith-Oka*

**Paul Spadafora and Elana Tan**

*Hard-Hammer Percussion*

The process of hard-hammer core reduction might be considered to be the most basic component of controlled stone tool production. The principles involved within hard hammer percussion strategies and the application of those principles to core reduction act as the fundamental components of the majority of flaking strategies and advancements within lithic technology. The central process within hard hammer core reduction is the use of controlled hard-hammer percussion to systematically remove flakes or blades from the outside of a core. Three main variables shape the production of flakes with this method: the shape and angle of the platform from which the object will be flaked, the angle of the blow administered with the hammer stone, and the force of the blow administered with the hammer stone. Hard-Hammer Core Reduction is a process found in almost all levels of lithics technology, most readily seen within Olduvian lithic technology and found also within Acheulean and Mousterian technologies.

*Faculty Mentor: Prof. Ian Kuijt*

## **Janine Spain**

*An analysis of the effects of Catholic morality at the University of Notre Dame on human papillomavirus vaccine education and administration*

Gardasil is a recently approved and recommended vaccine for young women against human papillomavirus (HPV), the most common sexually transmitted infection in the United States. HPV is most frequently diagnosed in 15 to 24 year olds and is a serious health threat that can result in genital warts and cervical cancer. Interviews were conducted with medical professionals both on and off campus, and with female Notre Dame students. Survey data of a larger group of female students was also collected. Medical professionals agree that this vaccine is a good form of preventative medicine for those women who are currently sexually active or considering becoming sexually active. Female Notre Dame students are largely uneducated on the transmission and effects of HPV as well as the potential benefits of Gardasil. Sexual activity is a taboo subject at Notre Dame. This has resulted in a lack of student knowledge about healthy sexual behaviors and the risks of sexually transmitted infections.

*Faculty Mentor: Prof. Vania Smith-Oka*

## **Brandon Sparks, Katie Smith, and Sarah Lyons**

*Understanding Life through Death: What Gravestones Reveal About Family, Community and Religion at the Turn of the Century in Midwest America*

At the start of this project, we set out to determine what gravestones could reveal about the demography, social status, ideology, and styles from the time period 1890 to 1915. We collected data from gravestones found in Cedar Grove Cemetery in Notre Dame, Indiana. The data analysis illuminated significant aspects of life at the turn of the century, including the mean age of death, the change in gravestone styles, the importance of fraternal organizations, the reigning gender ideology and family structure, and the emphasis on Christian salvation. Through our research, we realized that some facets of life such as the correlation between gender and age of death and the ethnicity of the deceased could not be discerned. However, we came to appreciate the important role that cemeteries play in revealing the stories of families and individuals and the social context in which they lived and died.

*Faculty Mentor: Prof. Deb Rotman*

## **Colleen Stehlin**

### *Tourism in the Guatemalan Highlands: Helping or Harming Indigenous Mayan Youths?*

The indigenous Mayans of the Guatemalan highlands has suffered through a tumultuous political climate in the last decades of the 20<sup>th</sup> century. Today, the Mayan population is largely impoverished. Many sectors of the population are malnourished, illiterate, and plagued by a host of additional social troubles. In recent years, the populations of rural indigenous communities have been largely impacted by the growing tourism industry in the scenic highlands of this Latin American nation. I am particularly interested to understand how the youth demographic of the Mayan population has been affected, both positively and adversely, by the presence of the ever-growing tourism industry. My ethnographic fieldwork in the indigenous Mayan community of San Marcos La Laguna, near Lake Atitlan, Guatemala will focus on the particular impacts of the blossoming tourism industry on the community's indigenous youth population. I will be observing marketplace interactions and conducting informal interviews with child-vendors and tourists alike. Additionally, I will be interviewing the staff and community subscribers to Clinicas Maya, a non-profit organization in the community which has programs dedicated to improving the quality of life for San Marcos' youth population. This project will elucidate the specific ways in which the blossoming tourism industry of the Guatemala highlands has impacted the indigenous youth population, both positively and adversely. The academic exploration of such relationships plays a vital role in understanding the roots of rural poverty and exploring new ways to work towards the elimination of poverty and suffering among the world's most unfortunate, especially children.

*Faculty Mentor: Prof. Eric Lindland*

## **Crystal Truong**

### *Evaluation of PILLARS: Peers Inspiring Listening, Learning, And Responsible Socializing*

There has been extensive research done about drinking and drug use among college students, and programs have been implemented on campuses that address issues raised. At Notre Dame, the Office of Drug and Alcohol Education (ODAE) sponsors PILLARS, a volunteer student organization that promotes responsible drinking and positive social norms. My project will be evaluating the different events sponsored by PILLARS, including freshman orientation meetings, mocktails, and Alcohol Awareness Week, by examining how each event is designed to promote the program's objectives. My method of collecting information included a survey and interviews with the PILLARS advising team and several PILLARS members. Taking into account current research information about social norms among college students, recommendations and feedback of the events are provided in the conclusion.

*Faculty Mentor: Prof. Vania Smith-Oka*

## **Robin Yim and Meghan McCandless**

### *Ground Stone Analysis*

In *A Technical Approach to Ground Stone Analysis*, by Jenny Adams, ground stone is defined as “any stone item that is primarily manufactured through mechanisms of abrasion, polish or impact or is itself used to grind, abrade, polish or impact.” So it is either a tool produced from or a tool used to produce something by means of grinding or abrasion. Before plant and animal domestication took the focus of the Neolithic period, ground stones were a very important definitive marker for this period. During the Neolithic Period ground stone tools were made with using new techniques out of tougher, less brittle stones, like granite and basalt or other macrocrystalline igneous stone. These tools later can be organized into different categories based on function.

*Faculty Mentor: Prof. Ian Kuijt*

## **Robin Yim, Kendra Short, Brittany Burnham, and John Dailey**

### *Family Grave Plots and their Spatial Orientation*

The way people are buried can reflect many different aspects about one’s life. In many cases, people often want to be buried with family members possibly to emphasize the love that the family had for one another. In these cases, many would assume that the members of the family would be buried in a specific order or orientation; i.e. having the parents in the center with the children around the parents in symmetric fashion with all the grave markers being of similar or same design. However, we have found that not to be the case in many situations at the Cedar Grove Cemetery. Here we investigate these “strange” arrangements and to possible reasoning to such arrangements.

*Faculty Mentor: Prof. Deb Rotman*

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