


4-26-2011

## 2011 - The Sixteenth Annual Symposium of Student Scholars

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16<sup>TH</sup> ANNUAL  
**SYMPOSIUM OF**  
**STUDENT SCHOLARS**  
*ON Undergraduate Research*  
*AND Reception*

RECOGNIZING EXCELLENCE IN STUDENT SCHOLARSHIP AND CREATIVE ACTIVITIES



*16<sup>th</sup> Annual  
Symposium of Student Scholars  
&  
Undergraduate Research Reception*

*April 26, 2011*

*Program*

4:00pm – 4:15pm  
*Convocation Center*

Welcome:  
Dr. Daniel S. Papp, President  
Dr. Ken Harmon, Interim Provost

4:15pm – 5:00pm  
*Convocation Center*

Undergraduate Research Reception

5:00pm – 6:00pm  
*Convocation Center*

Poster Session

6:15pm – 8:00pm  
*University Rooms,  
Student Center*

Concurrent Oral Presentation Sessions

***\*\*CETL is grateful to the Honor Society of Phi Kappa Phi for their financial support in providing food and beverages during the Symposium\*\****

## *Oral Presentation Sessions: 6:15pm - 8:00pm*

### **Session 1: American History (University Room A)**

6:15pm – 6:30pm: *Rosie the Riveter: Visually Exploring the Rhetoric, Myths, and Misconceptions in Norman Rockwell's "Rosie the Riveter" Painting and J. Howard Miller's "We Can Do It!" Poster*. Oral Presentation by Andrew Duvall (MAPW Program). (Faculty Sponsor: Dr. Anne Richards)

6:30pm – 6:45pm: *Neoconservatism and the "American Grain."* Oral Presentation by Eric Celler. (Faculty Sponsor: Dr. Jim Piecuch)

6:45pm – 7:00pm: *The British Response to Francis Marion's Operations in South Carolina, 1781*. Oral Presentation by Jason Lutz. (Faculty Sponsor: Dr. Jim Piecuch)

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7:15pm – 7:30pm: *The Jewish Experience in the American Revolution*. Oral Presentation by Rebecca Mattox. (Faculty Sponsor: Dr. Jim Piecuch)

7:30pm – 7:45pm: *"We Cannot Escape this Curse": Kertész's Non-Canonical Style and the Continuity of Auschwitz*. Oral Presentation by Valerie Bourgeois. (Faculty Sponsor: Dr. Katerina Gephardt)

### **Session 2: Immigrants, Refugees, and Religions (University Room B)**

6:15pm – 6:30pm: *The Georgia Salzburgers: The Social and Political Circumstances of the German Immigrants in the Colony of Georgia*. Oral Presentation by Tiffany Howard. (Faculty Sponsors: Dr. Sabine Smith and Dr. Jim Piecuch)

6:30pm – 6:45pm: *Attitudes Towards Immigrants among Georgia College Students*. Oral Presentation by Daniel Pass. (Faculty Sponsor: Dr. Darina Lepadatu)

6:45pm – 7:00pm: *Comparing Jewish and Palestinian Refugees Experiences*. Oral Presentation by Marshall Watson. (Faculty Sponsor: Dr. Maia Hallward)

7:00pm – 7:15pm: *College Students' Opinions About the Proposed Cordoba House Mosque as Related to Political, Military and Religious Affiliations*. Oral Presentation by Jennifer Nicole Weaver, Kimberly Wallace Stewart, and Caitlin Ayers. (Faculty Sponsor: Dr. Lauren Taglialatela)

7:15pm – 7:30pm: *The Boycott, Divestment, Sanctions (BDS) Movement: An Analysis of the Role of the Presbyterian Church (USA)*. Oral Presentation by Katie Sizemore. (Faculty Sponsor: Dr. Maia Hallward)

### Session 3: College and Popular Culture (University Room C)

6:15pm – 6:30pm: *Undergraduate Service-Learning in Elementary Schools: The KSU Model of Success, Part I*. Oral Presentation by Charles K. Sewell. (Faculty Sponsor: Dr. Sabine Smith)

6:30pm – 6:45pm: *Undergraduate Service-Learning in Elementary Schools: The KSU Model of Success, Part II*. Oral Presentation by Jennifer Allen. (Faculty Sponsor: Dr. Sabine Smith)

6:45pm – 7:00pm: *Work Ethic, Academic Success and the College Experience*. Oral Presentation by Jessica Hamby. (Faculty Sponsor: Dr. Darina Lepadatu)

7:00pm – 7:15pm: *Student Organization Affiliation and Self-Esteem: An Exploratory Study*. Oral Presentation by Nicole Newton. (Faculty Sponsor: Dr. Darina Lepadatu)

7:15pm – 7:30pm: *Drug Use in College: The Effect of Declared College Major, Gender and Race*. Oral Presentation by Brittany Rivere. (Faculty Sponsor: Darina Lepadatu)

7:30pm – 7:45pm: *Lightning McQueen: A “Jung” Stock Car’s Struggle with Balance in Life*. Oral Presentation by Jeremy Tillman. (Faculty Sponsor: Dr. David Thompson)

7:45pm – 8:00pm: *Symbolic Convergence: Working Toward a “Group Hug” with Lightning McQueen in Radiator Springs*. Oral Presentation by Lauren Walters. (Faculty Sponsor: Dr. David Thompson)

### Session 4: Arts and Sciences (University Room D)

6:15pm – 6:30pm: *Dionysian Elements in Sarah Ruhl’s Melancholy Play*. Oral Presentation by Avery Rabbitt. (Faculty Sponsor: Dr. Jim Davis)

6:30pm – 6:45pm: *Highlights from the Chautauqua/Colloquia*. Oral Presentation by Melissa Harvey, Tara Spear, and Laura Hettinger. (Faculty Sponsor: Dr. Jane Barnette)

6:45pm – 7:00pm: *Is This What I Think It Is? The Frontal Lobe and Influences on Taste*. Oral Presentation by Charnetta Brown. (Faculty Sponsor: Dr. Adriane Randolph)

7:00pm – 7:15pm: *Synthesis, Characterization and Methanolysis of N-Acylated Ethanolamine Esters*. Oral Presentation by Mary Babb Visscher, Beau Routh, and Scott Burley. (Faculty Sponsor: Dr. Kevin P. Gwaltney and Dr. John Haseltine)

7:15pm – 7:30pm: *Fractal Dimension or How Long is the Coast of Britain?* Oral Presentation by Nicole Dowling. (Faculty Sponsor: Dr. Yuliya Babenko)

7:30pm – 7:45pm: *Gaussian Quadrature Formulas*. Oral Presentation by Jessica Fuller. (Faculty Sponsor: Dr. Yuliya Babenko)

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### Department of Elementary and Early Childhood Education

*Teaching to the Test: How Federal Mandates Affect Elementary Educators' Teaching Styles.*  
Poster Presentation by Ashley Vande Corput. (Faculty Sponsor: Dr. Alice Snyder).....1

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**Ashley Vande Corput**  
**Dr. Alice Snyder**

Bagwell College of Education  
Department of Early Childhood Education

Mandates created by the American federal government in recent years have placed a large emphasis on the use of standardized testing in elementary schools. Legislation, such as the No Child Left Behind Act of 2001, has implemented required testing to monitor progress and achievement of all students in schools. As a result, educators now face the challenge of how to best prepare their students for these tests. In this qualitative case study research project, data collected from elementary teachers have been analyzed to determine how recent governmental laws are currently impacting teaching styles. Four third grade teachers and one student teacher in a medium-sized, public elementary school in a suburban area of a large metropolitan city in the Southeast were analyzed in the classroom setting. Semi-structured, tape-recorded interviews were conducted with each teacher, and multiple observations of classroom lessons taught by each were recorded through factual, objective notes. Topics addressed in the interviews included teachers' preferred teaching styles, beliefs of how students learn best, levels of teacher autonomy and accountability, classroom management, relationships between teachers and students, teacher and student roles, and diversity in the classrooms. Observations focused on activities, assessments, teacher-student interactions, implemented classroom management tactics, and the respective roles played by the teachers and the students in each class. Preferred teaching styles as reported by the teachers during the interviews were compared with their actual teaching styles as evidenced during the observations. An analysis of the data suggests that government mandates are affecting teaching styles, both directly and indirectly. Results show that government mandates have had a negative impact not only on teachers and their preferred styles of teaching, but also on what curricula are emphasized and how the curricula are taught. In this study, it appeared that government mandates impacted every move these teachers made, which leads this researcher to ask: is education today still focused on the student?

# **Is This What I Think It Is? The Frontal Lobe and Influences on Taste**

**Charnetta Brown**

**Dr. Adriane Randolph**

Coles College of Business  
School of Accountancy

This study investigates consumers' willingness to switch from a preferred manufacturer brand to an unfamiliar private-label brand if taste is perceived as identical. Consumer decisions are examined through EEGs and surveys with results revealing a switch. Cost saving options for consumers and advertising for managers are discussed.



# **Dionysian Elements in Sarah Ruhl's Melancholy Play**

**Avery Rabbitt**

**Dr. Jim Davis**

College of the Arts

Department of Theatre and Performance Studies

According to Mary L. Coolidge, Dionysian art “rejoices in the expression of [...] primitive, non-individualized feeling [...] enchantment, self-forgetfulness, ecstatic revelry.” It “celebrates the breaking of bonds and forms, a limitless and exuberant vitality.” Finally, “a discipline of Dionysus is not inclined to view stability as natural or desirable” (Coolidge 455). By these definitions, readers or audiences of Sarah Ruhl’s *Melancholy Play* can understand the contributions Dionysus offers this modern work and can begin to identify some elements utilized in the script and/or the performance. The most prominent (and repeated) Dionysian elements in the play are those mentioned in the three quotes above: the “primitive” emotions and expressions, the liminal “vitality” of the performance, and lastly, the naturalness of instability (455). The aforementioned statement is supported by close attention to characters, Ruhl’s narrative structure, directorial stylization, and other aspects of production. In conclusion, Dionysus and Kennesaw State University’s production of *Melancholy Play* are undeniably found to support each other. *Melancholy Play* is meant to create an experience that is not fully understood, but enjoyed—with the acceptance of that onstage enigma comes the appreciation of what one can’t understand. None are capable of fully understanding of the universe (or fully understanding of anything, for that matter), but one can always appreciate those absurd aspects of existence. In *Melancholy Play*, audiences enjoy those absurd moments, yet never suppressing the nonsense under the constraints of self-cultivated logic. Making sense does not matter when nonsense is universally more natural to identify with. Dionysian elements carry the essence of the play, as seen in the play’s “non-individualized feelings,” the numerous motifs of liminal states of being, and the instances where stability would be unreasonable and unnatural in many situations (Coolidge 455). In turn, *Melancholy Play* supports and preserves Dionysian principles by borrowing them. This relationship between modern theatre and Dionysian elements proves that Dionysus is alive in modern theatre today, and that human nature continues to be enigmatic, absurd, provoking, and absolutely hilarious. Such experiences must be cherished as they are.

## **Highlights from the Chautauqua/Colloquia**

**Melissa Harvey, Tara Spear, and Laura Hettinger**  
**Dr. Jane Barnette**

College of the Arts  
Department of Theatre and Performance Studies

In this presentation, three students will share their research from theatre history and theory. Their papers stem from the research and writing project in TPS 4513 (History/Theory I, Ancients-Renaissance), an assignment that requires students to find a debate or disagreement in the scholarship about this period. Harvey's paper, "The Greek Gender: Unplugging the Female from the Feminine in Ancient Greek Drama," exposes the politics of performing gender for the Ancient Greeks; while Hettinger ("Shakespeare in Love?") and Spear ("Shylock's Badge of Sufferance") both query different issues of identity in the writing of William Shakespeare.

# **Rosie the Riveter: Visually Exploring the Rhetoric, Myths, and Misconceptions in Norman Rockwell's "Rosie the Riveter" Painting and J. Howard Miller's "We Can Do It!" Poster**

**Andrew Duvall (MAPW Program)**  
**Dr. Anne Richards**

College of Humanities and Social Sciences  
Department of English, Professional Writing Program

An image may, at first, be viewed from an artistic standpoint, but it can also be explored in light of its social context. The field of visual rhetoric explores how images are used as a form of cultural communication. For example, certain works of art have been intended to convey distinct messages to the viewer. In this PowerPoint presentation, I will examine two works that are commonly believed to have similar meanings: Norman Rockwell's painting "Rosie the Riveter," and J. Howard Miller's "We Can Do It!" poster, which are both fascinating examples of visual communication created during the era of the Second World War. Both works drew on contemporary familiarity with Rosie the riveter, a fictional character from a popular song who today is often considered a symbol of women's entering the workforce to fill the jobs of enlisted men during that war. The presentation briefly examines how both works of art were viewed in their historical context, during World War II, and how the images are often viewed today. Just as the meanings of words change over time, the meanings of images may change, subsequently representing something very different from what they originally were intended to represent. This presentation references James Kimble and Lester Olson's essay "Visual Rhetoric Representing Rosie the Riveter," as well as various essays from the scholarly collection "Defining Visual Rhetorics," by Charles A. Hill and Marguerite Helmers, including Janis L. Edwards's "Echoes of Camelot: How Images Construct Cultural Memory Through Rhetorical Framing." When both images are viewed today through a feminist lens, we often conclude that in representations of Rosie the riveter, the original intent was to portray an empowering feminist icon. This presentation concludes, however, that the images were not nearly as empowering of women when originally disseminated and that Rosie the riveter has become a modern day myth. Finally, the presentation suggests that, in the future, it would be valuable to explore the perceived validity of images whose meanings have changed over time.

# **We Cannot Escape this Curse: Kertész's Non-Canonical Style and the Continuity of Auschwitz**

**Valerie Bourgeois**

**Dr. Katerina Gephardt**

College of Humanities and Social Sciences  
Department of English

Since the end of the Holocaust, the representation of Auschwitz has been standardized, especially in literature and film. This standardization imposes limitations and rules on the manner in which the events of the Holocaust can be portrayed. The literary conventions that are typically employed with Holocaust texts include a chronological account of atrocities, scenes of trauma, affective language and images that place the Holocaust firmly in the past, giving the reader a sense of closure, of escape from the horrific events that accompanied the Holocaust. This view, however, is problematic to author and Nobel laureate, Imre Kertész. As a Holocaust survivor and citizen of Hungary, Kertész has constructed an oeuvre that addresses the Holocaust in a manner that runs counter to the traditional canon. His rebellion against the standardization of Holocaust narratives can clearly be seen in his work, *Kaddish for an Unborn Child*, published in 1990. The entire novella presents the narrator's life in a detached manner, oftentimes referring to the Holocaust only in circumvent manner. Yet, throughout the story, Auschwitz is a permanent fixture, a presence that is inescapable. Kertész's oeuvre addresses the reality of Auschwitz in a post-Holocaust world. For him, Auschwitz has never ceased to exist. Because it happened once it can happen again, especially if the telling of it becomes so standardized and full of kitsch that it alienates younger generations. Standardization of history, Jean-Francois Lyotard argues, is a way of consuming the past, not remembering it. For Kertész, the unorthodox approach to Holocaust narrative is a call for the reader to remain vigilant against the possibility of the recurrence of the Holocaust. By using a variety of critical essays on Kertész and his work and by analyzing speeches and interviews that Kertész has given, my presentation/paper (will) demonstrate that Kertész employs a variety of narrative devices to cast aside a traditional telling in order to communicate the importance of remembrance and the fear of the Holocaust's return. For Kertész, a citizen of Hungary, a nation he still sees consumed with anti-Semitism, the chance of Auschwitz's return is only strengthened when people are distanced from the event by standardized memory.

# **Rock Band: Conveying a Positive Message through Rock Music**

**Ashley Allmond**

**Dr. Brandon Lundy**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

Are rock musicians trying to improve their image by taking a more active role in their lyrical content and sending out a more positive message? That is exactly what this research set out to discover. For this project, three different rock bands at various levels in their professional careers were selected as the study sample. One band has reached the professional circuit, a second band headlines for professional bands, and the third group is just starting out in the music industry. All three bands play in the “rock” music genre. This study focuses on the discourse, meanings, and symbolism behind lyrics. What is the message being conveyed? Why? How is it interpreted by the listener? The methodology used for this research was participant observation at various concerts and rehearsals for all the bands and formal and informal interviews with the band members and fans attending the concerts. The results for this project show that, at least for these bands, there is a positive message behind their music and it is interpreted as such. The bands are thankful of their fans and give back to them by hosting free concerts and through their choice of lyrical content. Most of their lyrical content has messages about God, their friends, and their families. From the responses received from the informal interviews of the fans and students, the results show that people focus more on the lyrical content than expected. These same fans make their musical selections accordingly. If bands like these continue to be successful in the musical industry, they might just rewrite what it means to be in a rock band. However more research is needed to see if this is a popular movement in the music industry for the country as a whole or just in metro Atlanta.

# **Campus Green: A Spatial Analysis of Tree Species on the KSU Campus**

**Aaron Broyles**

**Dr. Nancy Hoalst Pullen**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

The purpose of this research was to determine the frequency and distribution of tree species located around the main campus of Kennesaw State University (excluding forest areas such as the Arboretum). Each tree on campus was identified by species and marked by a waypoint using a handheld GPS unit. The data were mapped in a GIS to show spatial distribution of tree species. The results indicate more species exist on campus than in the forested areas, particularly non-native species. Of the species, crepe myrtle and oak species are the most numerous. These data provide baseline data for a campus-wide map of tree species and their biogeographic origins.

# **Freemasonry: Secret Society or a Society with Secrets?**

**Lindy Crapps**

**Dr. Brandon Lundy**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

Freemasonry is interwoven into United States history. Many of our founding fathers were Freemasons including George Washington, Ben Franklin, John Hancock, and Paul Revere. Nine signers of the Declaration of Independence were Freemasons. It would seem as if this would be an important group to better understand since many of their tenants and beliefs have been such an influence on our society. Despite such prominent Freemasons, past and present, there remains a cloud of skepticism and doubt about the true intentions of the organization. Historically, freemasons have been persecuted by religious groups and governments who fear opposing belief systems and free thinkers. It is a valuable endeavor for Americans to understand what our forefathers and other influential Americans beliefs and desires for America were based upon. Why the secrecy? This research attempts to find out more about the individuals that make up Freemasonry and why they decided to become a Freemason. Through interviews and observation, this research addresses why freemasonry has survived and why it has been so influential in America. Results show that a lot of people have been drawn to Freemasonry because of its mystery or because of a family member's involvement, but the people that actually stick with it are the motivated ones that want to better themselves and the people around them. They advocate free thought, freedom to explore opinions, and the idea that the world can be a better place without observance of a particular organized religion. The ideas of morality, charity, and equality are distinct attributes of a Freemason, one that could be shared with society at large.

# **If at First You Don't Succeed, Remise, Remise, Remise: Hierarchy and Identity Among Fencers**

**Kaitlin Crow**

**Dr. Brandon Lundy**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

Most Americans exposure to fencing comes through the movies, brave heroes dueling for their lives upon some far away land. Due to the unpopularity of the sport, fencing is highly misunderstood and under acknowledged. The academic literature on fencing is comparably sparse. Little is known about how fencers identify and organize between their respective clubs. This research illustrates that there is more to fencing than picking up a weapon and knowing how to score a point or win a bout. Several clubs within the Atlanta and metro Atlanta area were observed and interviews were conducted to understand this tight knit, yet poorly understood, subculture. Some clubs denied the researcher access. Such denial was limiting to the overall scope of the study but also provided valuable insight into the hierarchies in question. The results of the research suggest that within fencing clubs, the hierarchy is a combination of social prestige among coaches and peers at the higher levels in spite of the available rankings based on skill. On many occasions the identity of the fencer is directly tied to their coaches and the unique styles that come directly from such exposure. Understanding the power structure and configuration of fencing, and those involved with the sport, may allow for a better comprehension of similar structures in other sports.



# **An Analysis of Bone Fractures Resulting from Falls from Height**

**Tammy Davis**

**Dr. Susan Kirkpatrick Smith**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

Forensic anthropologists must be able to determine whether a person died by falling from a place of height or by another type of blunt force trauma if presented with multiple bone fracturing involving an undetermined cause of death. This experiment involved dropping a 30.15 pound pig from a height of 38 feet, followed by an analysis of the complete skeleton for any fractures that were caused by this blunt force trauma. This research will be able to show that specific fractures occur as a result of falls from height. Accurately determining bone fracturing and its causes as in this study can aid forensic anthropologists in solving undetermined causes of death.

# **Adoption: Broadening the Horizons of Kinship and Culture**

**Jessica Duckworth**

**Dr. Brandon Lundy**

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Department of Geography and Anthropology

Adoption is a lengthy, complex process which brings cultures together and changes a family's preconceived ideas of kinship. My research project examines that process and the dynamics of international adoption. I hypothesize that American families are just as influenced by culture through transnational adoption as the adopted children. This study sampled members of adoptive families and consultants from various international adoption agencies around metro-Atlanta. Through the course of the research, ethnographic methods were employed including interviews and participant-observation at adoption agencies, play-groups of adopted children, and educational children's classes where adopted children learned about their native heritage, language, and culture. This research finds that the process of transnational-transracial adoption affects both the adoptive family and the adopted child equally in terms of cultural exchange. These qualitative results were consistent between numerous adoptive families. The results also demonstrate that international adoption is a positive course of action that serves the greater good by extending cultural horizons and by developing a broader understanding of kinship.

# **The Ballistic Analysis of One of the Most Common Bullets and Common Revolvers in United States**

**Devyn Faux**

**Dr. Susan Kirkpatrick Smith**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

In forensic ballistic trauma there are several studies on military firearms. This can be problematic in the field of forensic anthropology because military firearms have different characteristics from civilian firearms. One of those characteristics is that military firearms do not equip hollow-points bullets. This is important because hollow points are one of the most common bullet types in the United States for civilians and police force. This means hollow points will be typically seen in U.S. firearm related homicides, thus giving further research on hollow points its importance. This research will be examining specifically the ballistic trauma of a .38 caliber revolver, one of the most common guns used in American crimes, equipped with hollow points. For this experiment I will be shooting three pig heads in the skull to replicate effects that might be seen on a human skull, shooting at a perpendicular angle to the pigs heads to imitate a realistic type of murder, and shooting at an effective of distance for the revolver at fifteen feet. The heads will also be suspended by a fixture to make the pig heads 5'10" tall—the average height of an American male. Once each pig head has been shot once in the skull, the pig heads will be stripped of their flesh, and the bullet wounds will be analyzed. This research will illustrate the uniqueness of using a .38 caliber revolver with hollow point bullets; show ballistic trauma patterns in the skulls of the pigs, and the consistency of these patterns with other similar studies. These patterns will allow forensic anthropologists to identify the type of caliber and type of bullet. The results of this research will be useful because it will be adding additional information to ballistics of common used bullets and firearms in the United States, which will be particularly helpful for forensic anthropologists.

# **Use of Deer Bones to Assist in Determining Time Since Death in a Humid Subtropical Climate**

**Joel Fulkerson**

**Dr. Susan Kirkpatrick Smith**

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Forensic anthropologists need to understand the different decay rates from various climates to estimate time since death. To determine the decay rate for North Georgia in the spring time, two wet long bones from deer were used to see how each would decay in different locations. The first location was a hole one foot deep in a shaded area. The second location was on the ground in a private wooded area that was partially-sunny. After eight weeks, the buried bones were dug up, cleaned and analyzed to determine decomposition. When comparing the buried bone to the bones left on the ground, the buried bones showed a moderate degree of decay after eight weeks. The bones left on the ground went beyond moderate degree of decay in less than one week and almost skeleton, with little soft tissue in eight weeks. This kind of research is important for Forensic anthropologists in North Georgia who are trying to determine time of death on remains recovered during the spring time.

# **Chant, My Sweet Lord: An Analysis of Hare Krishna Recruitment**

**Chancy Gatlin**

**Dr. Brandon Lundy**

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Little is known about the Hare Krishna religious groups in the United States. Hare Krishna devotees are commonly viewed by people outside of the movement as fanatical cultists that use brainwashing to bring others into their religion. The purpose of the study is to clear up misconceptions about Hare Krishna religion by describing aspects of recruitment. It aims to describe the recruitment process of the International Society for Krishna Consciousness (ISKCON) including increasing membership and spreading the “word” of Lord Krishna. The study also focuses on how the Hare Krishna religious beliefs and principles contribute to recruitment as well. The research was conducted at the New Panihati Dam Hare Krishna temple in Atlanta, Georgia. The researcher used ethnographic methods including participant observation and, unstructured and semi-structured interviewing. The study finds that the ISKCON recruit new members by distributing literature, publicly displaying their faith by singing the Hare Krishna mantra, offering food to the public, and by providing daily example of how Lord Krishna affects their lives. The original hypothesis of the researcher was that Hare Krishna devotees put an excessive amount of emphasis on recruitment. However, it was gradually revealed that their primary focus is on spiritual devotion rather than active recruitment. As a result, the religious beliefs and principles greatly impact the recruitment practices. The results of the research contribute to a greater understanding of the ISKCON movement in and around Atlanta, Georgia.

# **Horticulture as a North American Subsistence Strategy**

**Vicki Ina F. Gloer**

**Dr. Brandon Lundy**

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Experimentation and innovation are universal food production strategies based upon the psychological desire for satisfaction and potential for long term security that may help explain the prehistoric origins of food production in North America. Allen W. Johnson found that innovation was globally pervasive and adaptive within traditional agricultural communities, despite a general belief by mid-twentieth century scholars that experimentation carried too high an economic risk for populations that are economically dependent upon agricultural production. Numerous studies have considered the temporality of the relationship between sedentary settlement and food production. Of importance to modern humans is that the diversity supported by experimental and innovative gardening supports sustainable food production, helping protect against the types of catastrophic losses that can be experienced in monoculture cropping. Gardeners are unlikely to make use of advanced agricultural technology and are more similar to prehistoric horticulturalists than modern farmers. This study examines modern gardening practices in North America to test the hypothesis that agricultural experimentation is a human adaptive strategy and local gardening practices are based upon both cultural and environmental considerations. Additionally, gardening may either be part of an overall economic strategy of food procurement or may not provide any economic benefit to the gardener. Participants in the study were asked to describe their gardening methods, their views of gardening and the environment in general, as well as their experimental practices. The study demonstrates that gardeners find satisfaction in growing their own food; therefore, they continue gardening despite poor harvests and the lack of economic benefit. Some of the research participants locate their garden somewhere other than their full-time residence and all engage in some experimentation lending support to the ideas that permanent sedentary settlement did not necessarily precede prehistoric food production and that food production in North America resulted from human experimentation.

# **Chert Hunting: Color and Pattern Variation of Chert Sources in Northwest Georgia**

**Vicki Gloer and Jonathon Bruce**  
**Dr. Terry Powis and Dr. Mario Giraldo**

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Department of Geography and Anthropology

The Chert Sourcing Project of Kennesaw State University enlarges upon the geoarchaeological work of Sharon Goad in the late 1970s to source chert in Georgia. Goad used neutron activation trace element analysis to trace the origin of raw materials used to create lithic tools recovered from the Wallace Reservoir to sources over 200 km away in the Valley and Ridge Geological Province. The current researchers hypothesized that raw lithic materials, such as chert, were typically used locally within a resource range of less than a hundred miles (160.9344 km) because of the costs involved to transport heavy raw materials. Samples of visually different chert were taken in numerous locations throughout Dade, Walker, and Catoosa Counties in northwest Georgia. Each chert source was geographically located using global positioning system (GPS) technology and mapped using geographic information systems (GIS) technology. The resultant maps were analyzed to provide information regarding potential sample source locations. Chert samples were prepared in the laboratory, visually analyzed, and cataloged. Preliminary results of the study indicate that numerous varieties of chert are found in northwest Georgia and chemical analysis will be required in addition to visual analysis to provide data to accurately source chert artifacts recovered from archaeological sites in Georgia.

# **Stories of Forced Migration: From Burma to America**

**Jessica Griggs Burnette**

**Dr. Brandon Lundy**

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“Sir, this is a Buddhist festival. I cannot serve you alcohol. It is not allowed at a Buddhist festival.” The drunken Sergeant replied with a swift blow to this man’s face with the butt of his rifle. This is how one young refugee’s story begins. This project investigates the lives of Burmese refugees living in and around Atlanta, Georgia. How are they enculturated and how do these refugees achieve a successful life after being uprooted from their homes and tossed into a foreign land? Unstructured interviews and sessions of participant observation allowed study participants to tell their stories of refuge. They were interested in telling others about the inhumane treatment of Burma’s people by the Army Regime that now controls their country. They told stories of daily life within Thai refugee camps. Many Burmese refugees lived illegally in Malaysia where they were exploited. The Malaysian government forced each person to buy their way out of deportation and arrest, only to promise them the freedom of sleeping, still illegally, in a one room flat that housed twenty other men, women, and children. These refugees survived these difficult conditions often without running water, heat, or air conditioning. These monstrosities in Burma have been occurring for well over 20 years, and it is time that the rest of the world comprehends what is taking place in Southeast Asia.



## **Assessment of Saw Marks on Bone**

**Courtney Hamilton**  
**Dr. Susan Kirkpatrick Smith**

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Department of Geography and Anthropology

The analysis of saw marks in bone is important in forensic anthropology investigations surrounding dismemberment of human remains. It is possible to place a saw into classes based on the marks left behind in bone. Identifying characteristics of the blade such as size, shape, and width of a blade and the number of teeth per unit can be useful in identifying suspected weapons in criminal investigations. Using three different saws (hacksaw, jigsaw, and circular saw), I plan to cut into the long bones of pigs in two ways: once completely through and once partially through. After the saw marks are made, I will examine the kerf walls and floors macroscopically. In my research I expect to find what researchers before me have found: that different saw blades leave marks with unique patterning. The intent of this research is to match the results of studies previously published.

# **Archaic Goes Woodland: Evidence of an Archaic Presence at a Woodland Period Site**

**Sedrie Hart**

**Dr. Terry Powis**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

Towards the end of the 19th century the world transitioned from riding a horse and buggy to driving automobiles; a period often referred to as the “turn of the century.” Other transitional periods are well documented throughout written history such as the Dark Ages to the Medieval Period as well. These transitional periods existed long before writing systems had been established to record and document history. In prehistoric times, no such writing systems existed, but transitional periods can be documented through the archaeological record. The Terminal Archaic is such a period in which changes in stone technologies evolve from large stemmed projectile points to much smaller Swan Lake or Woodland spike types. The Terminal Archaic period can be readily seen through the artifacts recovered from the Charles Holland Site (9PA7), located in Paulding County, GA. This poster will look at the changes in lithic technology over a period of 4,000 years by taking a close look at the stone tools from the Holland Site. By the use of maps and contextual evidence, we will look at the Woodland world and attempt to solve the mystery of how these Archaic artifacts were found at a Woodland site.

# **My Achy Bones! The Application of Forensic Methods to Determine Pathologies of Skeletal Remains**

**Sedrie Hart**

**Dr. Susan Kirkpatrick Smith**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

When skeletal remains are found by law enforcement agents or archaeologists, the context in which they were found is different, but one question is common to all skeletal finds. Who did these remains belong to? The science of forensic anthropology has created methods by which to determine age, sex, and ancestry, as well as to determine the cause of trauma and pathological lesions. Nothing is known about the demographics of the human remains used in this research project other than his sex. This skeleton is full of pathological lesions, exposure of spongy bone, as well as osteophytes around joints and enthesophytes on the long bones. This study will attempt to determine the disease(s) that this individual suffered from during his life. These diseases will be broken down into possible primary diseases such as osteoarthritis and secondary diseases and injuries caused by the primary disease. Inflammatory diseases such as gout and rheumatoid arthritis are common occurrences with primary diseases like osteoarthritis. This study will employ current methods used in the study of paleopathology to attempt to identify primary and secondary diseases, as well as infer if other injuries were directly caused by the pathology of the skeletal remains.

# **Non-Traditional Students: Use of the Lifelong Learning Center at KSU**

**Christine Hutchinson**  
**Dr. Brandon Lundy**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

Non-traditional students are defined by Kennesaw State University as those students who are 25 years of age or older, or those who manage the responsibilities of working and supporting a family. According to Todd Powell, Assistant Director of KSU's Adult Learner Program, 54 percent or 14,284 students are classified by the university as non-traditional. In order to meet the unique needs of this population, the university offers services meant to support non-traditional students in their scholarly pursuits. These services are offered in a single location on campus known as the Lifelong Learning Center (LLC). This research study identified the services students utilize at the LLC and evaluated if the LLC does, in fact, meet the needs of non-traditional students. Data was gathered via online surveys, interviews of current and former non-traditional students and an LLC staff member, as well as through participant observation. The results of this study indicate that while the LLC meets its stated goal of offering needed services for non-traditional students at KSU, an expansion of the tutoring programs and better outreach to the non-traditional student body may improve their success. Further research will aid the LLC in meeting its mission of graduating thriving non-traditional students.

# **Analysis of Gunshot Trauma to the Skull from Three Commonly Used High Velocity Projectile Types at a Typical "Street-Fight" Distance.**

**Camille Kittrell**

**Dr. Susan Kirkpatrick Smith**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

The purpose of this study is document how three distinct types of bullets commonly used both in home self-defense and "street-fights" cause damage to a skull. Three pig heads were shot from twenty-one feet with one 0.40 caliber weapon using three different projectiles: full metal jacket, expanding full metal jacket and jacketed hollow point. The heads were then de-fleshed and cleaned using standard forensic methods. The projectile traumas were assessed by macroscopic inspection for point-of-entry penetration and fracturing characteristics. Wound sites were measured with digital sliding calipers. Exit wound characteristics (if present) were measured and documented. Anticipated findings are that the wound entrance sites will be significantly larger than those produced by small caliber weapons as documented in earlier forensic studies. I expect the hollow point bullet to create extreme radiating fracture patterns around an irregular entrance wound, while the full metal jacket will create a round entrance wound with some radiating fractures.

# **Drawing the Line: Cultural Distinctions Between Street Art and Graffiti**

**Nathan Lambert**

**Dr. Brandon Lundy**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

The urban environment has become a canvas for graffiti writers since the early 1980s; in more recent times a new cultural movement, called street art, has emerged that incorporates the act of putting art into public space much like graffiti, and yet containing a distinct aesthetic. This study suggests that street artists communicate differently than graffiti artists, provide alternative messages, and come from a different demographic than their graffiti writer counterparts. The researcher collaborated with several artists who live and work in the Atlanta area. The study answers several questions about this scene including why street artists choose to create art outside of a gallery setting, what challenges they face in working in this genre, and what factors distinguish them from traditional graffiti writers. Through interviews and observation, it is apparent that street artists incorporate political voice into their work and often express themes of generosity and goals of beautifying the urban landscape. These artists are currently under threat by new legislation by the city of Atlanta; the project provides documentation of work before it is removed as well as gives voice to the artists' side of the issue.

# **Geography, Culture and Environmental Perceptions in Latin America and the United States**

**Matthew R. Lloyd and John Nicholas Stoerner**  
**Dr. Nancy Hoalst Pullen**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

This paper presents a cross-cultural study comparing the global and local perspectives of individuals regarding geography, environment, and culture. From 2008-2010, over 1000 people from Chile, Bolivia, Ecuador, Peru and the United States (Georgia) were surveyed to assess their knowledge of the vernacular (both physical and cultural), as well as their knowledge and generalizations of global environmental issues. Results suggest that unique relationships do exist between geographic location and one's general perceptions of nature. These relationships redefine accepted and culturally-identified generalizations and stereotypes imposed or acknowledged by individuals from a given country.

# **Report on the Analysis of Skeleton 2 Excavated from a Tomb Located on Chryssi Island, Crete, Greece**

**Laura Lund**

**Dr. Susan Kirkpatrick Smith**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

In June 2010, human skeletal remains were analyzed at the INSTAP Research Center in Pachia Amos, Crete. They were excavated in October 2008 on the island of Chryssi located eight nautical miles south of Ierapetra, Crete. Situated in a small room of the remains of a Late Minoan structure was a cist grave that had possibly been built during the late Roman period. The oval-shaped tomb (A607) walls were constructed from irregularly shaped conglomerate fieldstones of various sizes that had been interiorly worked for smoother interior grave walls. The tomb contained a minimum number of thirteen individuals all oriented east-west with heads to the west. The lack of soil change within the grave indicates that all individuals might have been buried during a short period of time. My research focuses on Skeleton 2, which was one of the last to be buried. Skeleton 2 was a juvenile between 5 – 7 years old. Pitting lesions on the distal right radius and on the endocranial surface of the right parietal suggest that this child had an active infection at the time of his/her death. This is consistent with the presence of similar pitting found on several of the other skeletal remains. The details of the excavation could help describe cultural information regarding burial practices when individuals perish in a short period of time due to infectious disease. The pathology present on several of the skeletal remains could also shed light on the possible health threats affecting a very small community living on the small island of Chryssi.



# **En-Gendering Engineering: Examining the Corporate World of Engineers in Atlanta**

**Ashley Moss**

**Dr. Brandon Lundy**

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Engineering historically has been a male dominated field in all aspects including the corporate sector in the United States. However, women have made several advancements in the field since they were first accepted into engineering departments. While there are still far less women in the field, they are now holding higher positions in corporations than they did previously. It seems as if women in engineering are experiencing less direct gender discrimination; however, systemic microdiscrimination remains and is being overlooked by the perpetrators and often the very women who experience it. This study explores how female engineers engender new processes of adaptation in the work place in order to have a more cooperative work environment. Two interviews were conducted with female engineers at a large company in Atlanta, and participant observation took place with one lead engineer and her collaborative team. In addition, an interview was conducted with two male engineers that work in separate companies. Also, a diverse group of female and male engineers took a survey that shows the motivation of the engineer obtaining a degree and the female's willingness to circumvent discrimination by adaptation and postponement of traditional female roles in their personal lives. Currently, the remnants of the glass ceiling are alive and well although women in power have employed these strategies successfully in order to navigate beyond the systematic drag on career advancement.

# **Military Lifestyles: The Everyday Struggle for the Family of a National Guard Soldier**

**Brittany Nixon**

**Dr. Brandon Lundy**

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The military is something close to the heart of most Americans since everyone seems to know someone who has served. However, the National Guard is normally left out. How do National Guard families face the struggles of service and war when the public sentiment about what their son or daughter does seems to be outside the standard military purview? A particular unit of the Army National Guard has been selected and observed to obtain data. Interviews and participant observation was used to gather data for this study. The results suggest that National Guard families tend to have a more difficult time coping with a soldier going overseas because there is little contact between the families of these soldiers and thus the immediate support group is smaller. The data shows that the National Guard families have a more difficult time coping with a deployment. Divorce rates are higher because of longer tours and loved ones have a more difficult time dealing with the separation because they do not live on a base where there is a highly developed support structure. The military deployments tend to change based on the context, which also adds to the increased stress levels for those loved ones left behind. Statistics and data show that the National Guard is just as difficult as other military branches, if not more difficult on the family.

# **The Significance of Medicinal Plants in Ancient and Contemporary Maya Life**

**Megan Parker**  
**Dr. Terry Powis**

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The focus of this study was to determine which medicinal plants the modern Maya people use in order to piece together a picture of how the ancient Maya civilization would have utilized the plants in their environment. I was motivated to begin this research because of the contemporary Maya that I encountered while I was visiting Belize in June and December of 2010. Seeing how many of the Maya were able to identify most of the plants that they came across led me to ask questions regarding the ancient Maya and how they would have utilized the rich Belizean plant life that was found all around them. In order to best determine the various uses that could be found in Central American plants, I found myself studying with a Maya elder who often gathered plant medicine for the people he knew; he taught me about the plants that were to be found there based on the knowledge that had been passed down to him through generations. During the time that I spent studying the plants, I became aware of just how rich and abundant the environment in Belize could be. By studying the plants that are used by the Maya today, we are able to determine a glimpse into the practices of the ancient Maya. Not only was I able to learn about these plant medicines, but also about some of the small spiritual rituals that surround the gathering and use of this medicine. For the ancient Maya, these plants were the only medicine available to them, and it seems as if a spiritual significance was attributed to their use, which has carried on, in some part, to the contemporary Maya that we see today.

# **Magic: Why Do They Gather?**

**Kathryn Ragan**

**Dr. Brandon Lundy**

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The world of trading cards is often stigmatized and stereotyped. Its inhabitants are dismissed as obsessive, as geeks, or as antisocial nerds, and to outsiders, the identities of these players are often inexorably linked to their participation in the subculture of the chosen activity. People view the culture as self-contained, rarely intruding upon the general public. As such, to date there is little anthropological literature available on the topic of trading card “gaming,” particularly in relation to Magic: The Gathering. Through ethnographic methodology, this paper addresses the lack of knowledge about this growing subculture. Do the “Magicians” identify themselves as a Magic culture? How invested are they in the game? Is the culture internally homogeneous? Through observation of and participation in tournaments and games, the researcher entered the culture as a beginner and was taught the basic principles of the game just as any other newcomer. Establishing rapport and connecting with informants to gain perspectives on the culture, the researcher conducted interviews and gathered data from a wide range of players. The study confirms that Magic is like many other hobbies, with hobbyists occupying a spectrum from barely engaged to completely involved. The participants lead varied lives that merely happen to converge on an interest in a challenging and complex card game. For the most part, these “gamers” do not appear to be any more obsessive or antisocial than amateur athletes, antiquarians, or even stamp collectors.

# **Recycling at Kennesaw State University: What Does “Going Green” Mean?**

**Bryan Reece**  
**Dr. Brandon Lundy**

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Department of Geography and Anthropology

Over the last two decades recycling has steadily become more readily available to residential, commercial, and industrial properties throughout North America. The concept of “going green” has been introduced to American culture to try and promote recycling behavior and awareness. This project was designed to identify and understand current recycling policies and practices by students, faculty, and staff on the campus of Kennesaw State University in Georgia. Mini-Recycling Centers (MRC’s) located throughout campus were directly observed to better understand disposal and recycling behaviors and students, faculty, and staff were interviewed on the campuses’ current policy and collection methods. MRC’s are receptacles located throughout campus and give the depositor options on how to discard their waste. Because this decision is up to the depositor, the research finds that people more often than not discarding all of their waste as trash instead of separating recyclables unless their discard is a single recyclable item such as a plastic bottle, aluminum can, or a few pieces of paper. This behavior seems to be tied to education on what is and is not recyclable, convenience, and a policy that has not kept up with the technologies available to the waste collection facilities. Keeping up with these technologies is important not only on campus but in everyday waste disposal habits in order to conserve resources for ourselves and future generations.

# **Methods and Materials in Ancient Maya Construction**

**Bryan Reece**

**Dr. Terry Powis**

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Department of Geography and Anthropology

The ancient Maya area covers parts of the Mexican states of Tabasco and Chiapas, all of the Yucatan Peninsula, Belize, Guatemala, the western parts of El Salvador and Honduras. The earliest buildings constructed by the Maya in these areas were perishable wood-and-thatch roofed huts. Because these materials do not preserve well this leaves us with no way of knowing exactly when they first appeared on the landscape. The use of stone as a construction material first appears in the building of very low platforms which slowly evolved over time into some of the most impressive architectural constructions in the world. Because of weathering processes, bioturbation, and other factors no Maya structures or temples today have remained fully preserved as they once stood before abandonment. Because these construction phases were built one after another directly on top of the preexisting structure this allows us through excavation to stratigraphically observe these changes through time. Artifacts recovered within each deposit allow for the dating of each construction phase because they are sealed within each phase of construction. Data recovered from Structure 36 of the North Group at the ancient Maya site of Pacbitun located in west-central Belize will be the source for this example of a series of construction phases, methods, and the materials utilized by the ancient Maya at this particular site.

# **Honey's Hold: Why Become a Beekeeper?**

**Kate Sherman**

**Dr. Brandon Lundy**

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Department of Geography and Anthropology

Over time, the numbers of beekeepers in the United States have steadily dropped because of societal changes. Now, the threat of Colony Collapse Disorder is affecting commercial beekeepers and causing them to choose different careers. Commercial beekeepers may not make a large population, but the hives they manage make up an enormous amount of the bee population. Without these beekeepers to care for hundreds of hives, bee colonies are losing natural habitats through a multitude of pests and diseases. These beekeepers serve to protect this insect that, especially now, is frequently under attack. The purpose of this research is to discover what motivates a person to become a beekeeper and how one gets involved in the beekeeping community. This research demonstrates that beekeeping is not typically something one picks up one day, but an activity passed on by relatives and close friends. Through various interviews with beekeepers and observations at bee club meetings, information was found to reveal that beekeeping experience and equipment is generally gained through family connections. Hives and the ability to keep them are taught by older relatives or friends and the hobby becomes a tradition they feel they need to continue. It is a romantic tradition similar to that of a family farm, where each generation picks up where the last one left off because of nostalgia. Although this method of knowledge transference is in-depth and helpful, new beekeepers without this strategy need to be educated in other ways to help maintain the honey bee population. By learning what inspires one to become a beekeeper, new opportunities for hands-on learning and training can be developed in order to boost the number of beekeepers and save the honey bees from extinction.

# **Latino Entrepreneurship in the Southern U.S.**

**John Stoerner**

**Dr. Vanessa Slinger-Friedman and Dr. Nancy Hoalst Pullen**

College of Humanities and Social Sciences  
Department of Geography and Anthropology

Studies regarding Latino immigration and ethnic economies in the United States are commonly limited to traditional Latino ethnic enclaves in urban regions. However, Latino ethnic immigration and ethnic economies are arguably expanding outside these traditional regions. In this study, we research the growth of Latino-cuisine restaurants within suburban Cobb County, Georgia, to explore the shifting spatial distribution in Latino ethnic economies in the U.S. The study addresses the motivations for Latino restaurant entrepreneurs to open businesses in certain locations as well as the geographical, political and socio-demographic factors influencing the restaurant's overall success. Preliminary findings start to give us a better understanding of the current trends in ethnic economies in less traditional areas of Latino immigration in the suburban regions of the South.



## **Fastest Way to a Fire: Exploring the Boundaries of GIS**

**Jacqueline Waits**

**Dr. Nancy Hoalst Pullen**

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Department of Geography and Anthropology

This project showcases the improvement of the Bartow County Fire Station maps and well as the map book used in fire department vehicles. New maps reformatted and redesigned current maps and included the fire stations, county fire districts, hydrant locations, and bridge locations, along with other relevant information. The result of the project allowed for the development of web and mobile applications to improve function of incident to route locations and hydrant maintenance, along with general data quality improvements. Overall the project met the geospatial needs of the fire department.

# **Tattooing: A Study of the Placement and Meaning**

**Michael Weaver**

**Dr. Brandon Lundy**

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Department of Geography and Anthropology

The art of tattooing is becoming increasingly main-stream in the United States. Our bodies have become the canvases for an ancient art-form that has evolved into an extensive and intricate form of expression. The specific aims for this study are to explore why people choose certain areas of the body to be tattooed over others and to understand the different social pressures that can determine the placement of tattoos on an individual. This project examines the symbolism present within the designs that people choose to wear and why these symbols are important to them personally and culturally. The study sample for this research consists of four individuals who are the recipients of one or more tattoos as well as the tattoo artists of a local tattoo parlor located in Buford, GA. In addition to sessions of participant observation at the parlor itself, the study utilized qualitative data from semi-structured interviews. This research found that there are indeed many social pressures and personal reasons that can determine selection and placement of tattoos. Additional research on the art of tattooing should promote a wider understanding and acceptance of the practice as it becomes more popular within society. This research is important because it illuminates one aspect of the intersections of fashion, cultural identity, and social control.

# **Understanding the Baha'i: An Anthropological Approach**

**Brittany Wallace**

**Dr. Brandon Lundy**

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Department of Geography and Anthropology

In the Baha'i faith, unity is the underlying principle of all actions and dealings in daily life. The core beliefs of the Baha'i faith have unified hundreds of thousands of people without being limited by cultural boundaries. What makes the Baha'i faith so widely appealing to such a vast array of individuals with differing cultural backgrounds? The unity within diversity that is upheld by the Baha'is is worthy of study because they have achieved a truly unique form of multiculturalism. This accomplishment is highly important in a world where cultural differences can become points of contention and can result in conflict. What might we gain from understanding the ideas that have unified the people of this faith? Through the attendance of Baha'i devotional services, spiritual learning classes, and through interviews and personal interactions with members of the Baha'i faith, this research finds that unity is more than just a nice thought, but an imperative perspective. The appeal of the Baha'i faith to an all inclusive range of cultural backgrounds is in their core tenets of faith. They believe that one religion does not have a monopoly on truth, and respect the truth that can be found in all religions. They also create a sense of community and acceptance, which is a common human need, within the Baha'i community no matter what culture one was raised within. This force is the reason that so many people with diverse cultural backgrounds can come together and share a faith.

# **Hispanic Christianity in the Metro Atlanta Area**

**Chappell Rebecca Wright**

**Dr. Brandon Lundy**

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Department of Geography and Anthropology

Catholicism has been a major cultural influence in Latin America for centuries. Recently, Protestantism has also made a huge impact on these cultures. For example, many Mexican and Venezuelan immigrants have converted from Catholic to Protestant denominations such as the Church of Christ and Seventh Day Adventist. This is likely due to increased evangelism of Protestant churches. This still leaves the question, why exactly do they cross the religious divide? Also, do they tend to convert before or after their migration to the United States? This study explores Hispanics participating in the Seventh Day Adventist, the Church of Christ, and the Catholic congregations around the metro Atlanta area and compares the reasons and rates of participation and conversion. Participant observational data collected from Woodstock Church of Christ, Campus Church of Christ, Roswell Springs Hispanic Seventh Day Adventist Church, and the Immaculate Heart of the Blessed Virgin Mary show a significant number of Hispanic members in each congregation. Data collected from interviews with Hispanic Protestant ministers show that conversion is due to a few different factors. They support the idea that there is more evangelism in Protestant denominations, which influences Christian Hispanics to convert. The results of the study also show that certain Hispanics turn away from the Catholic Church because they are encouraged to read the bible themselves in a Protestant setting, whereas the Catholic Church usually reserves this practice for the priest. This study shows the diversity of various sects of Christianity and how this impacts the Hispanic community in the metro Atlanta area. The next step in this research process is to see how the impact of Hispanics converting to Protestantism is impacting the Catholic Church.

# **Neoconservatism and the "American Grain"**

**Eric Celler**

**Dr. Jim Piecuch**

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Department of History and Philosophy

This paper seeks to explain what the American grain is and whether or not neoconservatism goes against it. I argue that Natural Law/Natural Rights, Enlightenment rationalism, individualism, and capitalism make up the American Grain and that neoconservatism goes against it by appealing to a mystical "higher purpose," by looking at the collective as the primary political unit, by rejecting the individual's ability to think for himself, and by seeking to institute a neo-Puritan culture that rejects the libertarian principles upon America is built. I am looking at Jefferson as representative of Enlightenment thinking in America; and Plato, Machiavelli and Leo Strauss via Irving Kristol as representative of the political-philosophical architects of neoconservatism.

# **The British Response to Francis Marion's Operations in South Carolina, 1781**

**Jason Lutz**  
**Dr. Jim Piecuch**

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Department of History and Philosophy

This paper examines the British efforts to counter American partisan leader Francis Marion's operation in South Carolina in 1781. Plagued by Marion's raids and harassment of the Loyalist militia and British outposts, British commander Lieutenant Colonel Francis, Lord Rawdon, launched several efforts to end Marion's depredations. This paper provides a general overview of British efforts while focusing specifically on Rawdon's two-pronged effort to distract Marion with an expedition under Lieutenant Colonel John Watson while a second force succeeded in capturing and destroying Marion's base on Snow's Island. The paper highlights the overlooked effectiveness of British antipartisan operations in the Revolutionary South.

# **The Jewish Experience in the American Revolution**

**Rebecca Mattox**

**Dr. Jim Piecuch**

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Department of History and Philosophy

This paper challenges the conventional view that Jewish participation in the American Revolution consisted almost solely of providing financial support for the Americans. Through extensive research, it can be shown that the Jewish experience was in fact quite similar to those of other ethnic and religious groups in America. The paper will present evidence of Jewish contributions to the Revolutionary cause through military service, political leadership, and other forms of support. It will also address the subject of Jewish Loyalists and the affect of the Revolution on Jews in the United States.

## **Francis Marion in the 1781 South Carolina Campaign**

**Angela Tooley**

**Dr. Jim Piccuch**

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Department of History and Philosophy

This research explores the strategy and tactics implemented by General Francis Marion during the Revolutionary War's South Carolina Campaign, Spring 1781. With only a handful of dedicated militia officers, scanty supplies, and very little support from the main body of the Continental Army, General Marion's superb leadership and ingenious approach to warfare systematically drove the British Army out of South Carolina. This accomplishment not only saved the entire South from falling under British control, but it allowed the bulk of the Continental Army to remain in Virginia, where, at Yorktown, they secured the Colonies' independence.



## **Undergraduate Service-Learning in Elementary Schools: The KSU Model of Success, Part II**

**Jennifer Allen**  
**Dr. Sabine Smith**

College of Humanities and Social Sciences  
Department of Foreign Languages

Presentation introduces the specifics of a successful KSU service-learning initiative in local after-school programs for children in grades 3-5 facilitated by undergraduate learners; showcases instructional examples from foreign language, history, and mathematics that appeal to multiple intelligences; introduces the center approach to instructional delivery; presenter shares materials via PowerPoint slides and handouts and facilitate question and answer segment. Goals and objectives: To showcase the versatility of a sustainable service-learning program and curricular principles, which can be used with any academic subject; to communicate to session participants the knowledge, tools, and resources to adapt the program template to their own contexts; to help audience understand a sample lesson and the three learning centers; to share materials via PowerPoint slides and handouts; to process participants' reflections via discussion prompts in the final segment of Q&A. Relevance of the presentation topic: At a time when changing demographics and budgetary constraints issue many challenges, this service-learning opportunity provides an alternative for all millennial learners. It represents a win-win situation inasmuch as it allows undergraduate students to transfer knowledge and skills from the college classroom to elementary schools, reinforcing academic learning while teaching children. Children in the local community benefit from a free after-school program in which undergraduate students advocate for college education and civic engagement. Presenter has been with the KSU Learn & Serve program since fall 2008. This is her 5th semester with the program and her 3rd term as Lead Teacher in charge of the classrooms. She will be graduating in May 2011 with a degree in World History and a certificate in Public History. One of her achievements includes the creation of an electronic portfolio/journal template that is used by undergraduate facilitators to record their hours, learning objectives, reflections, and assessments of the program.

# **The Theme of Death in the Final Poems of Alfonsina Storni**

**Megan Alpern**  
**Dr. June Laval**

College of Humanities and Social Sciences  
Department of Foreign Languages

In Alfonsina Storni's final two collections of poetry, *Mundo de siete pozos*, and *Mascarilla y trébol*, the reader notices a change in her tone and her style. We will identify the causes of this change of tone in order to relate them with the events of her personal life. In *Mundo de siete pozos*, Storni depicts the human mind as "A world of seven wells" using fragmented language and surrealism in order to explore the themes of death and the alienation of modern, urban life. The collection, *Mascarilla y trébol* was published in 1938 after her death. In these poems we notice the use of images of the ocean, a foreshadowing of her eventual suicide by drowning herself in the ocean. We will examine the parallels between Storni's personal life and the change in tone of her final works of poetry.

## **Writing with Purpose: The Impact of a Real Audience on the Writing Outcome of French Students**

**Wes Griner, Charisa Demott, Jessica Gates, Mallory Brewer, Izeleenn Ledezma, Maria Quiroz, Jayne Hoffman, and Chelsea Korzenko  
Dr. Lucie Viakinnou-Brinson**

College of Humanities and Social Sciences  
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Foreign Language (FL) writing tends to be considered by FL learners and practitioners alike as the most difficult, time consuming, burdensome and frustrating task (Homstad & Thomson, 1996). Yet on the other hand research studies indicate that writing for real audiences motivate students to write. With funding received from the CETL GLUS award, beginner and advanced students of French utilized their creativity, linguistic and cultural knowledge of the Francophone world to write children's books in French. The books were used not only to support literacy effort of educational non profit organizations working in Francophone West Africa but also to promote awareness of the French language and Francophone cultures in local schools in GA. Students will share their reflections on the project, discuss their engagement in local and global service learning as well as the challenges and rewards of writing with purpose.

# **The Georgia Salzburgers: The Social and Political Circumstances of the German Immigrants in the Colony of Georgia**

**Tiffany Howard**

**Dr. Sabine H. Smith and Dr. Jim Piecuch**

College of Humanities and Social Sciences  
Department of Foreign Languages

The cultures that have shaped the American way of life have derived from every corner of the world. Georgia, as one of the original thirteen colonies, played an essential role in defining America as we know it today. The German immigrants of the eighteenth century, who were original to the establishment of Georgia, were numerous and brutally exiled from Europe for their Protestant beliefs. This religious persecution is a chief factor in the ideology which helped shape the Constitution of the United States. It also served as inspiration for Europeans, especially the literate Lutherans who read the Salzburgers' infamous immigration story in a publication of daily journals by priests who became political advisors and spiritual leaders in the colony of Georgia. When American colonist began their arduous struggle for independence, the German speaking community in Georgia, known as the Salzburgers, had established a thriving society which became trapped between colonial rebels and British supporters. This research discusses the back and forth positions among competing loyalties in which they were forced. The drama of their social and political struggle is researched by analyzing a number of prominent Salzburgers' accounts. The heritage of the Salzburgers is preserved in the area in which the town of Ebenezer, GA was established by the Salzburgers. While Ebenezer is an innocuous town today, important foundations of their community, Jerusalem church and the adjacent orphanage, still stand as the first of their kind in the state of Georgia. The Salzburgers' testimony also survives through an archive of artifacts housed by the Georgia Salzburger Society in Rincon, Georgia. While my research paper discusses only the immigrants' journey to America and their struggle to become Americans, their impact on Georgia history has been significant over time. A KSU-sponsored site visit to Rincon, GA, in December 2010 allowed me to connect my academic research of the Salzburger history to the present challenges of historic preservation via a service-learning project in support of the Ebenezer Retreat Center and its museum. In bridging my interests in American History and German Studies, I researched authentic Austrian cuisine and translated a museum guide from English to German.

# **The Agonizing Duality in the Life and Poetry of Delmira Agustini**

**Melanie Kimura**

**Dr. June Laval**

College of Humanities and Social Sciences  
Department of Foreign Languages

Received with admiration by some and criticized by others, the poetry of Delmira Agustini shows the imagination of a young Uruguayan poet with a rebellious spirit. The conflict between her conservative roots and her desire to express her human and physical desires created conflicting ideas. Our objective is to gain a better understanding of the duality in the life of Agustini in order to see the influence of this duality in her poetry. The erotic tone in her poetry demonstrates her strength of character and her willingness to express her most intimate feelings. In addition, at a time in which the world was dominated by men, the poetry of Agustini represented a strong and fearless voice. The critique of her works by her contemporaries is a testament to the double standard that existed in her era. We see how the poetry of Agustini represents a rebellion against the ideas of women during that period of history.

## **“Lazarillo de Tormes: La Decisión Entre Hambre y Honra” (English: “Lazarillo de Tormes: The Choice Between Hunger and Honor”)**

**Amanda Moore**

**Dr. Robert Simon and Dr. Lynn Fedeli**

College of Humanities and Social Sciences  
Department of Foreign Languages

The Sixteenth century, known in Spain as the “Golden Age,” proved very prosperous for a small percentage of Spaniards. However, for the multitudes it was a time of poverty and suffering. The unknown author of *Lazarillo de Tormes* presents this dark side of Spain’s history by recounting the journey of a rogue named Lazarillo. This study explores the decision Lazarillo must make between satisfying his very basic need to obtain food or fulfilling a very prevalent societal need to appear as a man of importance and honor. It focuses on the social conditions confronting him, his experiences while the servant of a prideful squire, and his situation as a cuckold at the end of the novel. Through these elements, it is explained how Lazarillo comes to terms with his role in society and chooses to alleviate the hunger in his belly rather than chase the impossible dream of being “honorable”.

## **Mujeres de Ojos Grandes: Stories of Feminine Inspiration**

**Amanda Moore**

**Dr. June Laval**

College of Humanities and Social Sciences  
Department of Foreign Languages

Ángeles Mastretta, author of *Arráncame la vida* (1985) creates interesting and strong female characters that dominate the action in her works. In *Mujeres de ojos grandes*, the author finds the inspiration for her characters within her own family. The work is a collection of stories that relate the day to day challenges of being a woman in a world dominated by men. Each female character has her own situations, passions and difficulties which, though they seem different, share a common theme: the tenacious strength of woman. Through a study of the characters from this work, we will see how these women who inspire admiration and hope unify the content of the stories.

## **Undergraduate Service-Learning in Elementary Schools: The KSU Model of Success, Part I**

**Charles K. Sewell**  
**Dr. Sabine Smith**

College of Humanities and Social Sciences  
Department of Foreign Languages

Presentation introduces the history and core elements of a replicable template: the KSU service-learning initiative in local after-school programs for children in grades 3-5 facilitated by undergraduate learners; it showcases curricular principles and discusses of program merits for all stakeholders. Goals and objectives: To showcase the principles and merits of a sustainable service-learning program relative to undergraduate facilitators, to participating children, to school systems and local communities; to illustrate that undergraduates' commitment to 30 service-learning hours is manageable in a team approach despite a full course load; to demonstrate undergraduates' satisfaction with a service-learning opportunity that enriches academic experience, allows for optional course credit, and affords undergraduates enhanced marketability through development of professional skills. Relevance of the presentation topic: At a time when changing demographics and budgetary constraints provide many challenges in education, this no-cost, sustainable service-learning curriculum provides an alternative to traditional undergraduate learning and after-school programming. The program benefits college students inasmuch as it allows for transfer of knowledge and skills from the college classroom to elementary schools; it provides a motivational incentive and a great addition on their resume. The KSU model offers a free after-school alternative to schools: a safe location where parents can leave their children; a means for children to see college students advocate for education and civic engagement. Presenter has been with the KSU Learn & Serve program since spring 2009. This is his 4th semester with the program and his 2nd term as Lead Teacher in charge of the classrooms. He will be graduating in May 2011 with a degree in World History. One of his achievements includes the implementation of a structured meeting sequence in which program delivery is planned, prepared, and evaluated on a weekly basis.



# **The Theme of Love in the Poetry of Gabriela Mistral**

**John Stoerner**  
**Dr. June Laval**

College of Humanities and Social Sciences  
Department of Foreign Languages

In the poems of Nobel Prize winner Gabriela Mistral, central to her poetry is the theme of love. Throughout her work, whether illustrating pain, suffering, tenderness, or passion, there is always a noticeable undertone of this most universal of human emotions. Exploring the different kinds of love represented in the poems of Gabriela Mistral, one can examine the many facets and layers of her writing, what motivated it, and what she had hoped to accomplish with her writing.

# **Comparing Jewish and Palestinian Refugees Experiences**

**Marshall Watson**

**Dr. Maia Hallward**

College of Humanities and Social Sciences

Department of Political Science and International Affairs

This paper will explore the current and past status of Palestinian refugees in the Arab World and how these experiences differ from that of Jewish refugees from the Arab World. After examining the basics of international refugee law and the previous successes achieved its framework, I will explore the treatment and legal status of Palestinian refugees within their host countries. Furthermore, I will address Arab Jewish migration to Israel and the manner in which it has been framed in relation to broader Palestinian-Israeli narrative. Additionally, I will examine the dynamic of refugee status and the ongoing peace process in the Palestinian-Israeli Conflict.

# **The Boycott, Divestment, Sanctions (BDS) Movement: An Analysis of the Role of the Presbyterian Church (USA)**

**Katie Sizemore**

**Dr. Maia Hallward**

College of Humanities and Social Sciences  
Department of Political Science and International Affairs

This paper analyzes the current Boycott, Divestment, Sanctions (BDS) campaign directed at ending the Israeli occupation of the West Bank, East Jerusalem and the Gaza Strip, specifically within the context of church divestment. The BDS campaign is a response to the 2005 Palestinian Civil Society Unified Call for boycott, divestment, and sanctions that encompasses a consumer, academic, cultural, and sports boycott. It also calls for corporate, university, and institutional divestment from U.S. companies that profit from the Israeli occupation. By placing the BDS campaign in its historical, political, and social context, this paper explores the movement's potential to affect political change. As churches were an instrumental part of two twentieth century social movements, the U.S. Civil Rights Movement and the South African Anti-Apartheid movement, church divestment is specifically investigated in order to compare and understand its role in the BDS movement. To empirically examine the application of church divestment and compare it to the role of churches in the South Africa Anti-Apartheid Movement, the paper includes a case study of Presbyterian Church (U.S.A.) and its activities since 2004. The Presbyterian Church (U.S.A.) is considered the pioneer of the church divestment movement in the United States with regard to corporate engagement with U.S. companies that operate in the Israeli occupied territories.

# **Undeserved Blame Acceptance among a Substance Abuse Population**

**Timothy Curran and Alexander Pierre**  
**Dr. Jennifer Willard**

College of Humanities and Social Sciences  
Department of Psychology

This research investigated non-custodial false confessions made with the intention of taking the blame for another individual's antisocial or criminal behavior. The purpose of this research was to determine how prevalent blame acceptance is among individuals seeking help for substance abuse and to investigate personality and situational factors that contributed to these false confessions. Participants (N = 42) from two drug and alcohol rehabilitation centers in the South were surveyed. We examined personality factors and situational factors such as closeness with the perpetrator, severity of the antisocial behavior, and differential consequences between the confessor and the perpetrator. Ninety percent of participants reported being in a situation in which it was possible for them to take the blame for another, and of those who had been in such a situation 76% reported taking the blame. Participants who took the blame reported protection, being under the influence of alcohol and being rushed or stressed as possible factors that contributed to their decisions. Additionally, participants who took the blame tended to report feeling more loyalty toward the perpetrator than those who did not take the blame. Our research suggests that blame acceptance is widely prevalent among males who are substance abusers.

# **Recommendation Letters: What Are Graduate Schools Asking My Professors?**

**Timothy Curran and Tamalyn Placencia**  
**Dr. Jennifer Willard**

College of Humanities and Social Sciences  
Department of Psychology

The purpose of this research was to determine the most common questions included in clinical psychology graduate programs recommendation forms. Of 168 APA accredited clinical psychology PhD programs' websites searched, 45% contained downloadable recommendation forms. A content analysis was conducted to determine the type of question, the skill or characteristic of the applicant questions assessed, and the method of response (e.g., open-ended, multiple-choice, rating-scale). Within the forms, 59 types of questions were identified. Questions that appeared only once were dropped from the analysis, leaving 47 questions. Rating-scale questions that compared the applicant to prior students were frequently utilized. Many programs (84%) asked the capacity in which the applicant was known to the recommender. In addition, applicants were assessed regarding their research aptitude (63%), speaking skills (55%), and emotional stability and maturity (48%). Questions that did not appear often included the applicants' integrity (9%), dependability (9%), statistical skills (7%), and poise (2%). This research may help future graduate school applicants attain a better understanding of what questions are typically asked of those completing their recommendation forms. Additionally, recommenders may discover what attributes or skills graduate programs want their PhD candidates to possess and begin to foster these qualities in their students.

# **Attitudes Toward Gay Men and Lesbians: Social Interaction and Rights**

**Olivia Gupton, Courtney Collins, and Cara Sperry  
Dr. Amy Buddie**

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Gay men and lesbians are a minority within the United States and may be subjected to judgment and discrimination. Overall, gay men are rated more negatively than lesbians (e.g., Ellis et al., 2002; Herek, 2002). Men rate gay men more negatively than lesbians, whereas women rate them equally (Herek, 2002). Men and younger adults are less supportive of human rights for gay men and lesbians than are women and nontraditional students (Ellis et al., 2002). In the present study, we examined a host of attitudes toward gay men and lesbians, including some scales that have not previously been adapted for this population. We predicted that men and older age groups would feel more negatively toward lesbians and gay men than women and younger age groups. We also expected to find a correlation between attitudes toward human rights and comfort level of interacting with gay men and lesbians.

Undergraduate psychology students (236 women, 91 men) ranging in age from 18 to 59 years were surveyed. The following scales were used: the Attitudes Toward Gay Men and Lesbians scale (Herek, 2002; Larsen et al., 1980), the Support for Lesbian and Gay Human Rights scale (Ellis et al., 2002), and an adapted Social Interaction Anxiety Scale (Carleton et al., 2009). Overall, lesbians were rated more positively than gay men. Furthermore, women rated gay men and lesbians more positively than did men. Men rated lesbians more positively than they rated gay men. Analyses revealed that students just entering college (18–19 years old) had more negative attitudes toward lesbians than older students.

Women were significantly more favorable toward human rights than men were. There was a significant, positive correlation between attitudes toward lesbians and gay men and attitudes toward human rights and also how participants viewed human rights and how they would respond in social situations. Men were more uncomfortable interacting with gay men and lesbians than were women. Students who were 24–59 years old were significantly more comfortable in social interactions with gay men and lesbians than younger students. Compared with other studies that incorporated the same scales, the responses of our participants were similar (e.g., Ellis et al., 2002; Herek, 1994). Our study extends past research by examining social interaction anxiety. College administrators should consider these results when attempting to increase diversity and tolerance on campus.

# **Social Behavior and Activity Patterns in a Mixed-Species Group of Primates at Zoo Atlanta**

**Susan Haverly, Thomas Skinner, Claire Irie, and Alicia Espino  
Dr. Suma Mallavarapu**

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Very few studies have been conducted on the social behavior and activity patterns of black-and-white colobus monkeys (*Colobus angolensis palliatus*) and red-tailed guenons (*Cercopithecus ascanius schmidtii*). We aimed to fill this gap in the literature by studying 3 colobus monkeys and 3 red-tailed guenons in a mixed-species enclosure at Zoo Atlanta, from May 2010 to March 2011. Another goal of this study was to evaluate the well-being of the animals in the mixed-species enclosure. These types of enclosures could potentially cause problems such as a high rate of interspecies aggression, because of competition for space and/or food. Another potential problem is a high frequency of stress-related behaviors in the smaller animals because of the constant presence of larger animals. We used focal animal scan sampling in 30-second intervals and all-occurrences sampling for data collection. The colobus spent approximately 81.5% of the scans resting, 9.6% feeding, 2.5% locomoting, and 6.4% in other behaviors. The guenons spent approximately 68% of the scans resting, 13% feeding, 11% locomoting, and 8% in other behaviors. Our results indicate that both the colobus and the guenons were exhibiting less locomotion and feeding, and more resting, when compared to the behavior of wild colobus and guenons. Some enrichment might need to be provided, if it is important for the captive animals to be exhibiting activity patterns that are similar to those exhibited by wild animals. We also observed very little aggression between the two species, and no stress-related behaviors at all. This suggests that these two species can be housed together in a mixed-species enclosure, without too many concerns for their well-being.

# **Traditional and Non-Traditional Students: Study Strategies, Academic Performance, Graduate School Plans and Pressures**

**William Howard**

**Dr. Lauren Tagliatela**

College of Humanities and Social Sciences  
Department of Psychology

This research encompasses two related studies designed to investigate academic study strategies, academic performance, and graduate school plans for traditional and non-traditional students. Study 1 indicated that nontraditional students (<25 years, have children, work >20 hours/week, take <12 credit hours/semester) and traditional students use different academic strategies. Nontraditional students use superior studying techniques than their counterparts who are more likely to rely on rudimentary skills. This study also indicated that nontraditional students planning to go to graduate school have the same GPA ( $M=3.30$ ) as traditional students ( $M=3.29$ ) when they are planning to go to graduate school. However, nontraditional students who have no graduate school plans have a much higher GPA ( $M = 3.67$ ) than their traditional counterparts ( $M=3.15$ ). Study 2 was intentionally designed to assess potential reasons for the non-intuitive GPA/graduate program patterns described above. I evaluated pressures and benefits of attending graduate school as perceived by traditional and non-traditional students. Additionally, I evaluated students' self-reported engagement in undergraduate classes and the perceived utility of these courses. Taken together, these studies indicate that traditional and non-traditional students do not significantly differ in academic achievement; however, the suite of academic strategies does differ between these groups. Additionally, the differential patterns of graduate school plans and GPA for these groups may be explained by taking into account differences in current pressures and challenges to enter graduate programs, and the perceived cost/benefit of doing so.



# **Consenting to Unwanted Sex: Relationships with Personality and Depression**

**Jennifer Merrifield, Yanmin Sun, Jessica Angles, and Casie Anderson  
Dr. Amy Buddie**

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Consenting to unwanted sex refers to the act of people saying “yes” to sexual activity for various reasons when they actually mean “no” (Impett & Peplau, 2003). There has been little research on factors related to a person’s likelihood of consenting to unwanted sex (Bay-Cheng & Eliseo-Arras, 2008). Therefore, in our study, we assessed undergraduates’ (a) experiences consenting to unwanted sex, (b) personality traits (openness to new experiences, conscientiousness, extraversion, agreeableness, and neuroticism), and (c) depression levels. Our hypothesis was that people who score high in neuroticism would be more likely than those low in neuroticism to consent to unwanted sexual intercourse. We also predicted that depression would be associated with consenting to unwanted sex. Participants (N = 398) completed a 96-item online questionnaire that included demographics, the Big Five Inventory (John et al., 1991), the Beck Depression Inventory (Beck et al., 1996), and an original 27-item scale that assessed consenting to unwanted sex. Participants were asked to indicate how often they consented to each of the 27 reasons listed (e.g., “You felt that because you had engaged in sexual activity with this person previously that you should do so again”). The scale ranged from 1 (never) to 5 (very often). Our findings supported our hypotheses. The higher individuals scored in neuroticism and depression, the more likely they were to consent to unwanted sexual intercourse. Unexpectedly, agreeableness and conscientiousness were negatively associated with consenting to unwanted sexual intercourse. The present study extends past research on consenting to unwanted sex by examining personality characteristics and depression levels. Past research has been inconclusive regarding whether consenting to unwanted sex is negative or a normal aspect of relationships (e.g., Bay-Cheng & Eliseo-Arras, 2008; Impett & Peplau, 2003). Because problematic traits (e.g., neuroticism, depression) were positively correlated with instances of consenting to unwanted sex, our results suggest that on a macro level, consenting to unwanted sex may be detrimental to psychological well-being. These results are correlational; it is not known whether neuroticism and depression lead to consenting to unwanted sex, whether repeatedly consenting to unwanted sex leads to neuroticism and depression, or whether a third variable can account for these relationships. Nevertheless, considering the strong correlations we found among personality traits, depression, and consenting to unwanted sex, it is vital that more research be conducted in order to confirm our findings.

# **Seriousness, Relationship Status, & Beliefs about the World: Do They Contribute to Willingness to Take the Blame?**

**Brandon Mohammed, Lily Wilkerson, and Alexandra Baxter  
Dr. Jennifer Willard**

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Department of Psychology

This study investigates situational factors associated with people's decisions to take the blame for another person's antisocial behavior. In a 2 x 2 x 3 factorial design, researchers manipulated the type of situation (person present or absent), seriousness of the situation (low or high), and participants' closeness with the perpetrator (not specified, low, or high) in blame-taking scenarios. Participants (N = 264) were randomly assigned to read one of 12 scenarios that differed according to the above mentioned factors. Participants' impressions and beliefs about the scenarios, locus of control, and belief in a just world were assessed. Participants' willingness to take the blame was low; however, there was a main effect of seriousness such that those assigned to the low seriousness condition were more willing to take the blame than those assigned to high seriousness condition. Participants' were also more willing to take the blame in the person-present situation than in the person-absent situation. Locus of control was positively correlated with willingness to take the blame, such that those with higher levels of external locus of control were more willing to take the blame. Participants' beliefs regarding reciprocity, responsibility, guilt, and being perceived as a snitch were related to their willingness to take the blame.

# **(M)othering an Ethics of Alterity: Intersubjectivity, Abjection, and Love**

**Matthew Stewart**

**Dr. Stacy Keltner and Dr. Amy Buddie**

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Department of Psychology

I philosophically explore the ethical significance and narrative of (m)othering in the work of Julia Kristeva and Luce Irigaray to emphasize the performative embodiment of mothering as affective, corporeal, and ethical. Through a critical reinterpretation of Lacanian psychoanalysis, I reopen a discussion of the affective and ethical threshold that appears for subjectivity through (m)othering—specifically through intersubjective processes of compulsory abjection, affective proximity, and transference love. Returning to the maternal semiotic, I integrate feminist psychoanalysis (Kristeva, Irigaray) and existential phenomenology (Sartre, Levinas) in order to address the ethical narrative of the subject-in-process. Following Levinas to Kristeva and Irigaray, I account for the face-of-the-(m)other as the ethical call of responsibility 'for the other' such that it is the face-of-the-(m)other that transitions the subject-in-process into spaces of alterity and otherness.

# **Travel Abroad Students Personal, Academic, and Global Mobility Development and Enhanced Awareness of Globalization and Cultural Diversity**

**Christina Tzortzinakis and Helen Henry Spence  
Dr. Gail Scott**

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Department of Psychology

To increase global awareness, scholarship, global mobility, and understanding of cultural diversity, universities have created various forms of travel abroad programs for their students. In 2009-2010, over 860 students participated in the Kennesaw State University (KSU) Travel Abroad Program, which extended to 30 countries. We surveyed 262 of these students who had traveled to one of 25 countries. Questions assessed the extent to which students perceived that they benefited academically, experientially, and personally from their experiences. Students also provided their opinions about the effectiveness of the KSU Travel Abroad Program and the extent to which learning outcomes (e.g., developing a greater global perspective, global mobility, becoming knowledgeable and appreciative of another country, its people and culture, and enhancing understanding of cultural diversity) were achieved. Responses revealed that students held highly positive perceptions of the Travel Abroad Program and its effectiveness in meeting learning goals and outcomes.

# **“I Only Did It If”: Situational Factors and Willingness to Take the Blame**

**Gabriel Vece, Mia Tharp, and Haley Wright  
Dr. Jennifer Willard**

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Department of Psychology

False confessions are widely recognized as a significant cause of wrongful convictions and miscarriages of justice. We sought to investigate false confessions that were made both voluntarily and in a noncustodial setting. We examined five situations, in which it was possible to take the blame for another person's antisocial or criminal act, to determine what factors would relate to participants' willingness to take the blame. One hundred and thirty-two participants volunteered to read three randomly-assigned scenarios describing an interaction between a person who commits an antisocial act and a second person (the participant), who is able to take the blame for the act or behavior. Based on differences in the scenarios, we sought to determine whether seriousness, responsibility, empathy, and understanding would be related to participants' ratings of their willingness to take the blame. Analyses showed significant associations between all of these variables. Specifically, seriousness was negatively correlated with willingness; although, this was not the case in every type of scenario. Responsibility, empathy, and understanding were also found to correlate significantly with willingness. We conclude that voluntary blame-taking behavior must be considered holistically, in the context of a number of different factors, in order to be fully understood.

# **College Student's Opinions about the Proposed Cordoba House Mosque as Related to Political, Military and Religious Affiliations**

**Jennifer Nicole Weaver, Kimberly Wallace Stewart, and Caitlin Ayres  
Dr. Lauren Taglialatela**

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Cordoba House is the mosque scheduled to be built in New York City about two blocks from Ground Zero. Shortly after the proposed location was disclosed, controversy arose (Carter, 2010). The major argument is “freedom of religion” versus “insensitivity (Payne, 2010).” To add fuel to the fire, the political leaders are openly defending one side or the other (Carter, 2010). Leaders like President Obama, who are known as being liberal, support the mosque, whereas leaders, such as, former Alaskan Governor Palin, who is known for her conservative nature are against the mosque (“Muslim Community Center in Lower Manhattan (Park51),” 2010, para. 5). We created an online survey to gauge college students’ opinions about the proposed Cordoba House Mosque, and to assess religious, military, and political affiliations and liberal/conservative nature, as related to one’s opinions about the mosque. Using a convenience sample, we acquired 166 participants. All were college students from a large southeastern university. Most of our sample identified as Christians, with less than 3% identifying as any other religion, or as not practicing religion. Most of the participants were female and the mean age was 22. Republicans were more likely to oppose the mosque than Democrats ( $F(1, 100) = 4.43, p = .038$ ). Those who self identified as Christian, Mormon, or Jewish were more likely to oppose the mosque than any other religious group, including those who were atheist or who did not practice religion ( $F(1, 157) = 34.44, p < .001$ ). Self-rating on a Likert-type school of conservatism versus liberalism was not a significant predictor of opinions toward the mosque. Serving or having served in the military or having an immediate member serve presently or in the past was not a significant predictor. Our two significant findings are comparable with polls (New York Times, 2010) These findings suggest that political and religious factors are related to public opinion about Muslim-related activities near Ground Zero. The composition of the sample was a limitation of this study. A future direction could be to administer this survey to a more diverse group of individuals and examine if factors related to feelings about the proposed mosque change.

# **Work Ethic, Academic Success and the College Experience**

**Jessica Hamby**

**Dr. Darina Lepadatu**

College of Humanities and Social Sciences  
Department of Sociology

The purpose of my study is to test if there is a correlation between number of hours worked, the age when a student start to work and their academic performance in college. This research question is important because many students hold part or full time jobs while attending college and this can help or hurt their academic performance in school. The results of my quantitative study show that 57% of students said that work becomes a barrier in student success. My project also found a weak negative correlation between ages of the first job and annual income showing that jobs in early life do not always have a positive impact on career success later in life.

# **Student Organization Affiliation and Self-Esteem: An Exploratory Study**

**Nicole Newton**

**Dr. Darina Lepadatu**

College of Humanities and Social Sciences

Department of Sociology

The purpose of my study is to determine if there is a link between self-esteem and organizational affiliation in college students and young adults. This will allow extended research to be done in order to decide if students with these associations value themselves or their education more than the students who do not have these connections or ties to groups and organizations. I chose this topic because I have noticed that people who are involved in group settings tend to be more open and outgoing, as well as eager to meet new people, learn new things and interact with others on a more consistent basis. The sample that I am focusing on is college aged students who are between the ages of 18- 35. Based on in-depth interviews with college students, my project describes the experiences and identity transformation of individuals who are active in student organizations.



# **Attitudes Towards Immigrants among Georgia College Students**

**Daniel Pass**

**Dr. Darina Lepadatu**

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Department of Sociology

Immigration has become one of the most controversial social topics in the U.S. The purpose of my research is to identify the prevalence of common stereotypes and misconceptions about immigrants among Georgia's college students. Based on a quantitative study, my findings show that college students maintain prevalent myths about immigrants, such as that most immigrants are undocumented, are more likely to use drugs, have higher rates of crime, and less likely to pay taxes.

# **Drug Use in College: The Effect of Declared College Major, Gender and Race**

**Brittany Rivere**  
**Dr. Darina Lepadatu**

College of Humanities and Social Sciences  
Department of Sociology

The purpose of my study was to test the correlation between declared college major, gender and race on drug use. Studies focusing on the effects of declared major on drug use are rare and therefore my project fills an important gap in the research on drug use among college students. Based on the results of my quantitative study I did not identify any statistically significant correlation between college major, gender and race on drug use. However, I identified a statistically significant correlation between living on campus and exposure to drugs.

# **Metabolic Scope in Urbanized Populations of *Campostoma Oligolepis***

**Christopher Smith**

**Dr. Scott Reese**

College of Science and Mathematics  
Department of Biology and Physics

The urban stream syndrome has significantly altered the composition of stream fish populations, leading to urbanized streams with lower diversity levels of fish species. Now, what makes one fish species more tolerant to the changes associated with urbanization than another is still not well understood. However, abiotic factors alone cannot fully account for the dramatic drop of certain species in urbanized areas. Therefore, other factors such as fish physiology must affect species survivorship rates and the goal of our research project was to examine how changes to water temperatures caused by the urban stream syndrome affect fish species *Campostoma oligolepis* metabolic rates. Metabolic rates for *Campostoma oligolepis* were measured at water temperatures of 20°C and 25°C. From this data, we were able to examine each individual fish standard metabolic rate, maximum metabolic rate, and metabolic scope. We discovered that the standard metabolic rate of *Campostoma oligolepis* increased with increased temperature. Therefore, at higher temperatures, these fish require more energy for basic survival and there is less energy available for growth and reproduction. If higher temperatures are maintained for longer periods, lower population sizes and decreased survival rates may result. Maximum metabolic rates for *Campostoma oligolepis* stayed the same for both 20°C and 25°C temperatures. This suggests that the maximum metabolic rate for *Campostoma oligolepis* is fixed for all temperature levels and that any changes to metabolic scopes of these animals are entirely due to changes in standard metabolic rate. The metabolic scope also decreased with increases in temperature supporting the hypothesis that at higher temperatures, fish have less potential energy available. Therefore, increased water temperatures can result in decreased population size of fish by decreasing the amount of available energy. This decrease in available energy is directly related to urban stream syndrome, since one of its main symptoms is increased stream temperature. However, more tests are needed on *Campostoma oligolepis* and other stream fish to examine if there are any observable differences between fish species metabolic scopes. This data will then be compared to individual species population sizes to examine whether there is a relationship between a species metabolic scope and species survivorship rate. Finally, we would expect species that are more abundant in urbanized streams to have higher metabolic scope than species that are less abundant. These fish species should include tolerant species, such as *Campostoma oligolepis*, since they are more prevalent in urbanized streams.

# **Forensic Investigation: Identification of a Suspicious Drug Found at the Crime Scene**

**Shannon Allen, Traci Benedict, Sundeep Mummaneni, and Andrea Peacock  
Dr. Huggins Z. Msimanga**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

In the Forensic Chemistry class (Spring 2011) we were charged with identification of a suspicious white powder that was found lying next to the victim's unconscious body at a crime scene. Identification of drugs is a multi-step process. We performed presumptive tests to find possible classifications of the drug. These screening tests included color tests, pH measurements, thin layer chromatography (TLC), and obtaining infrared spectra directly on the powder. Spectral analysis involved visual inspection of similarities/dissimilarities, calculation of correlation coefficients, and obtaining score plots by principal component analysis (PCA). We then analyzed the drug samples by gas chromatography/mass spectrometer (GC/MS) to confirm the structures. This project demonstrates the use of chemical techniques to analyze physical evidence and build evidential value. The results of this experiment are discussed below.

# **A Method for Gas Chromatography/Mass Spectrometry Analysis of Myristicin from Nutmeg Spices**

**Traci Benedict and Jaime Mericka**  
**Dr. Huggins Z. Msimanga**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

Nutmeg spices contain, among other essential oils, myristicin, which is acclaimed to have psychoactive effects similar to those of methylenedioxymeth-amphetamine. The major ingredients of nutmeg are long-chain carboxylic acids (fatty acids), including myristic and trimyristic acids. All of these compounds are soluble in organic solvents commonly used for GC sample injection. However, the polarities of myristicin and myristic acid differ slightly. In this investigation we evaluated several extraction solvents to find out if we could differentially optimize the extraction of myristicin over the fatty acids. Initially, we considered the use of TLC in an attempt to see which solvents could produce spots on silica. We also performed extractions under basic pH conditions, since at higher pH (above the pKa's of the acids), myristicin should remain unionized. Separation of myristicin using solid phase extraction before injection was also investigated. Nutmeg samples were processed using a Shimadzu GC/MS. Our findings are discussed below, with suggestions for future investigations.

# **A Novel Saturated Thione: Synthesis and Characterization**

**Adam Chadwick and Aleksandra Mikhaylova**  
**Dr. Daniela Tapu**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

The synthesis and characterization of a new imidazol-2-thione and its complexation with bismuth is described herein. A new imidazol-2-thione ligand was synthesized and characterized by Proton Nuclear Magnetic Resonance ( $^1\text{H}$ -NMR). This new imidazol-2-thione not only offers the opportunity for elaboration on the structure into a new class of imidazol-2-ylidene complexes, but also entry into the coordination chemistry of these thiones with main group and transition elements. Details on the chemistry of this thione with respect to its ability to support bismuth will be provided.

# **Complexation of BiCl<sub>3</sub> with a New N,N'-Disubstituted Cyclic Thione**

**Vanessa Chavez, Kelsey Uberto, and Josh Valencia  
Dr. Daniela Tapu**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

This experiment investigates the isolation of a new bismuth complex of a cyclic thione that can be used as a ligand in organometallic complexes. The synthesis of our ligand using 2-phenylethanamine as starting material involves a three steps process. 2-phenylethanamine was reacted with acetic acid and triethyl orthoformate to produce a symmetric formamidine in 72.17% yield. An imidazolidinium salt was then formed using ethylene bromide and the previous product. The salt was deprotonated with a strong base and the resulting carbene was reacted in situ with sulfur. Complexation of bismuth(III) chloride with this thione will be attempted.

# **Forensic Investigation: Do the Pieces of Glass at the Crime Scene Place the Suspect to a Common Source?**

**Maruf Chowdhury, Meshack Kiambuthi, and Ryan Shallies  
Dr. Huggins Z. Msimanga**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

In criminal investigation, determining the origin of evidence and preserving that evidence is crucial. Glass is a common piece of physical evidence in crime scenes involving car accidents, shoot outs, arson, break ins, and so forth. Laser Induced Breakdown Spectroscopy (LIBS) is an instrument that can identify solid evidence by ablating the solid with a laser. LIBS was used in the identification of glass in order to trace the origin, without destroying physical evidence. For spectral comparison, it is important that the spectra for a given sample be highly reproducible, but must be different from one sample to another. Instrumental parameters necessary for high precision data analysis are investigated in this project before a comparison of the different glass can occur. Glass from a criminal case was collected and analyzed and compared to sources obtained from possible suspects. Results of our findings are discussed in this poster.



## **Can DSS Be Used as an NMR Internal Reference for Self-Assembled Aqueous Systems?**

**Carl Craighead**  
**Dr. Bharat Baruah**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

Exploring location and orientation of molecules of potential therapeutic properties in self-assembled model membrane and nanostructures is a current topic of research. NMR spectroscopy is very commonly utilized and powerful tool in these studies. The chemical shift of 4,4-Dimethyl-4-silapentane-1-sulfonic acid (DSS) in  $^1\text{H}$  and  $^{13}\text{C}$  NMR in aqueous solution and in self-assembled aqueous systems found to be different. Therefore when chemical shift is used as an indicator of location and orientation of molecules in self-assembled systems appropriate care must be taken while using DSS as an internal reference. Use of DSS rather as an external reference for self-assembled aqueous system supports data quantification.

## **Forensic Investigation: Which Ball Pen Brand Was Used to Write the Note Found at the Crime Scene?**

**Kelley Duvall, Robert Kuruvilla, and Ashley Veney  
Dr. Huggins Z. Msimanga**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

The ZIM Bureau of Investigation (ZBI) is investigating a case involving two men. Apparently, an altercation that took place on January 16, 2011, around 3:15 pm, lead to a physical fight that left one man unconscious. Among other items, a note written in black ink was found at the crime scene. As Chemistry Division employees of the ZBI, we were charged to investigate who, between the victim and the suspect, wrote the note. A commonly used technique for ink identification is TLC. This technique provides  $R_f$  values and in many ways, it is inconclusive. Comparison of UV/VIS spectra of ink samples may have additional information. However, there are numerous blank inks in use today and spectra of such inks may be very difficult to tell apart. In this study, we have tried to enhance selectivity by using mathematical technique called principal component analysis (PCA). This technique groups together profiles that are highly correlated. We hope to further enhance selectivity by obtaining HPLC chromatograms, which may provide additional peaks to classify the inks. Information gathered is used to identify ink on the note and the inks from victim's and suspect's ball pens. Our findings are discussed in this poster.

# **Synthesis and $^1\text{H}$ NMR Characterization of a New Bismuth Complex**

**Timothy Eromomene and Jimmy Tan**

**Dr. Daniela Tapu**

College of Science and Mathematics

Department of Chemistry and Biochemistry

A new N,N'-disubstituted cyclic thiourea was prepared by reaction of imidazolidinium bromide with potassium t-butoxide in the presence of sulfur. The desired imidazolium salt was prepared in a two-steps sequence from the corresponding aniline by reaction with triethylorthoformate in acidic conditions, followed by the reaction with dibromoethane. The thione was characterized by H-NMR and IR spectroscopy. The reaction of this thione with bismuth chloride was studied.

# **Introduction to Raman Spectroscopy in the Physical Chemistry Laboratory**

**Timothy Eromomene, Lauren Beasley, and Raymond Godwin  
Dr. Brian Keller**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

Raman spectroscopy has rapidly become a new “go-to” method for routine chemical analysis. There are now many commercially-available Raman instruments. The Department of Chemistry and Biochemistry has a Raman instrument that is available for use in undergraduate laboratories. Undergraduate students have worked together to use the Raman instrument to develop two new laboratory exercises for Physical Chemistry Lab I (CHEM 3601L). The first laboratory is a simple introduction to Raman techniques and also the methods needed to use the instrument. Raman spectra were measured for some common organic solvents. The spectra were analyzed and vibrational frequencies were assigned with emphasis placed on the “fingerprint region”. Students then analyzed some unknown solvent mixtures and identified the components by comparing their spectral fingerprints to those obtained from pure solvents. A set of questions were developed to emphasize the theory of Raman spectroscopy and the importance of the fingerprint region in chemical identification. Progress on the development of a second experiment using silver nanoparticles to measure surface-enhanced Raman spectroscopy will also be reported.

# **Toward the Development of New Redox-Switchable Catalysts**

**Christopher Ghattas and Mahatab Chowdhury**  
**Dr. Daniela Tapu**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

Our project targets a new class of fused N-heterocyclic carbene ligands with a rigid bidentate architecture, ligands that we designed as supports for homo- and heterometallic complexes. The ligands incorporate redox active moieties. The reversible electrochemical oxidation and reduction of the redox moiety will provide a handle for additional fine-tuning of the carbene center and will offer the possibility to control the stoichiometric and catalytic reactivity of the corresponding transition metal complexes. Understanding the chemistry of these redox-active ligands will enable us to evaluate their potential role in applications, such as redox-switchable catalysts, that could allow for on-off switching of catalyst activity. Here we report the electrochemical characterization of a new fused imidazolium salt that contains an electrochemical handle.

# **Synthesis and Characterization of Bis(1,3-bis(3,5-dimethylphenyl)imidizolidine-2-thione) Palladium Chloride**

**Raymond Godwin and Marisol Lora**  
**Dr. Daniela Tapu**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

A three-step reaction sequence was used to prepare 1,3-bis(3,5-dimethylphenyl)imidizolidine-2-thione. 3,5-dimethylaniline was converted to the corresponding amidine by reaction with triethylorthoformate. This product was further reacted with dibromoethane to lead to the corresponding imidazolidinium bromide. This salt was deprotonated and treated in situ with sulfur to produce the desired ligand. The reaction of this ligand with  $\text{PdCl}_2(\text{CH}_3\text{CN})_2$  was studied.

# **MAPKAP Kinase 2 is Directly Modified by Treatment with Oxidized Glutathione**

**Tenaj Forbes, Emily Rye, and Sundeep Mummaneni  
Dr. Carol Chrestensen**

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MAPKAP Kinase 2 is Directly Modified by Treatment with Oxidized Glutathione Tenaj Forbes, Emily Rye, Sundeep Mummaneni, and Carol Chrestensen MAPKAP kinase 2 (MK2) is a member of the mitogen activated protein kinase activated protein kinase family. MK2 is activated by p38 MAP kinase and this signaling pathway is important in cellular responses to inflammatory cytokines and stress (e.g. UV, osmotic shock, oxidative stress). Mammalian MK2 has 7 conserved cysteines, that are not known to participate in disulfide bonds. Treatment of wild type MK2 with oxidized glutathione in vitro results in a gel shift suggesting direct modification of the protein by glutathione. This modification was confirmed by western blotting. This work was supported by the Research Corporation (CC6942), and the NSF (MCB-1020261).

## **Analysis of Psychoactive Stimulant in Samples of Over-the-Counter Bath Salt Blends**

**Raymond Godwin**  
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An investigative analysis of “bath salt” brands has indicated the presence of methylenedioxypropylamphetamine (MDPV) in at least two of the samples. MDPV is a known psychoactive substance which is currently unscheduled in the United States. The core structure of this molecule is similar to that of other stimulants such as methamphetamine and MDMA. Indicative results from a rough  $^1\text{H}$  NMR spectrum were obtained. Results from a solid IR spectrum have been determined to correspond with those expected for MDPV. An analysis by GC/MS yielded results,  $m/z$ : 126, 127, 149, indicating the presence of MDPV in these samples.



## **Results of Dissolution Studies of Bismuth Suspensions and Caplets in Varying Media**

**Marcus Harrison**

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Dissolution studies of bismuth containing stomach relief suspensions and bismuth caplets have shown different dissolution profiles based on media used. Complete dissolution is effective in 10 minutes in 900 mL of deaerated 0.09 M nitric acid at 37°C for a sample size of up to 7% of a standard suspension dosage and the full caplet. The use of 0.07 to 0.27 M hydrochloric acid was investigated and concentrations greater than 0.13 M allowed for dissolution of a sample size of up to 4% of a standard suspension and the full caplet. This difference between suspension and caplet is most likely due to the amount and type of cellulose in the suspension versus the caplet which hinders dissolution. Another possibility includes the formation of insoluble bismuth chloride in the hydrochloric acid media. Analysis of the tetraiodobismuthate(III) anion is by visible spectroscopy using the external calibration method at 464 nm.

# **Site-Directed Mutagenesis of Oxalate Oxidase Residues Involved in Catalysis**

**Eric Hoffer and Morgan Grant**  
**Dr. Ellen Moomaw**

College of Science and Mathematics  
Department: Biochemistry, B.S.

The overlap extension method of site-directed mutagenesis has been used to probe amino acid residues that have been implicated to play a role in catalysis and reaction specificity. Oxalate oxidase (E.C. 1.2.3.4) catalyzes the oxygen-dependent oxidation of oxalate to carbon dioxide in a reaction that is coupled with the formation of hydrogen peroxide. Although there is currently no structural information available for oxalate oxidase from *Ceriporiopsis subvermispora* (CsOxOx), sequence data and homology modeling indicate that it is the first manganese-containing bicupin enzyme identified that catalyzes this reaction. Interestingly, CsOxOx shares greatest sequence homology with bicupin microbial oxalate decarboxylases (OxDC). In this work, we will describe the strategy and experimental results of site-directed mutagenesis experiments designed to probe amino acid residues involved in catalysis and reaction specificity.

## **Gold Nanoparticle and Metal Coordination Compound Conjugates**

**Laura Jacobs, Caleb Abolarin, and Carl Craighead  
Dr. Bharat Baruah**

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Department of Chemistry and Biochemistry

Size 16 nm diameter gold nanoparticles (AuNP) were synthesized. These particles were further monolayer capped using various ligands and purified using ultracentrifuge or dialysis. These monolayer capped AuNP were further reacted with platinum and ruthenium metal complexes to form conjugates. Release of metal complexes from the AuNP based conjugates were monitored by UV-vis spectroscopy. Besides using  $^1\text{H}$  NMR spectroscopy to characterize AuNP conjugates, dynamic light scattering (DLS) technique was used to determine the size of AuNP and AuNP conjugates.

# **An Exploration into the Solubility and Dissolution Profile of Caffeine as Defined by pH and Solvent at 37°C Using HPLC and UV-VIS Spectroscopy**

**Haifa Khan and Kelsey Uberto**  
**Dr. Marina Koether**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

A study into the solubility and dissolution profile of caffeine in water, acetic acid/acetate buffer, HCl, HNO<sub>3</sub> and NaOH solutions of various concentrations was conducted. Caffeine is a base with a pK<sub>b</sub> of 10.4 and thus is ionized at low pH. Ionized species should have higher solubility at the lower pH's than the unionized form at the higher pH's. Saturated solutions were created and placed in a 37°C water bath for 1 day. These solutions were immediately filtered through 0.45 micron filters and diluted with the appropriate solvent for analysis by either HPLC or UV-VIS. A Dionex HPLC instrument using a C-18 column was used to quantify the caffeine in the diluted solutions using a 30% ethanol/70% (1.5% v/v) glacial acetic acid/ water mobile phase and detection at 254 nm. Results do indicate that solubility increases with temperature. Results differ based on solvent according to preliminary data for HCl and HNO<sub>3</sub> solutions. Quantification for the solubility and dissolution study was also accomplished by UV-Vis at 273 nm on a Cary 50 instrument. Dissolution studies in a dissolution tester involve using 6 vessels with 500 mL of media and stirring at 50 rpm at 37°C. Dissolution profiles using store-bought caffeine tablets indicate that caffeine is immediately released within 15 minutes. No statistical difference was found in the profiles based on solvent (HCl, water and acetic acid/acetate buffer). These solutions are far from saturated indicating that no solvent effects should be seen for rapidly releasing tablets.

# **Analysis of Lactase in Medication**

**Robert Kuruvilla**

**Dr. Marina Koether**

College of Science and Mathematics

Department of Chemistry and Biochemistry

People who are lactose intolerant need to take a commercial product containing lactase in order to digest products that contain lactose without having stomach pains. Lactose is found in milk, ice-cream, cheese, etc. The consumer's question is then which product should be purchased. This research project studied the efficiency of three brands of lactase containing products. Two fast-acting and one regular-strength product were analyzed. The enzyme lactase breaks down lactose to glucose and galactose. In order to determine the efficiency of lactase, 2-nitrophenyl  $\beta$ -D-galactopyranoside is used instead of lactose such that a color appears when it is broken down. This color can be analyzed at 420 nm using a Cary 50 UV-Vis Spectrometer with a dip probe. Lineweaver-Burke plots were obtained for all three samples and used to calculate  $K_m$ ,  $V_{max}$ , and  $V$  values. From this data, it was determined that Lact-Aid was the more effective lactase pill.

# **DFTB Study of the Addition of H<sub>2</sub>O Molecules to the Amino Acid Alanine**

**Marisol Lora**

**Dr. Martina Kaledin**

College of Science and Mathematics

Department of Chemistry and Biochemistry

This work explores the advancements of the density-functional tight-binding (DFTBA) method to describe hydrogen bonding in biological systems. As an approximate density-functional method, DFTBA holds nearly the same accuracy as the traditional DFT, but at much lower computational costs. Proton transfer and discrete solvation has been studied in biochemical processes previously<sup>1</sup>. This computational study examines the structure and the energetics of the hydrated alanine amino acid (ALA-(H<sub>2</sub>O)<sub>n</sub>, where n=1-3) as a function of the number of hydrating waters. The initial, gas phase structures of alanine and hydrated alanine molecules were obtained with Hartree-Fock (HF) and with DFTBA methods using Gaussian 09 program. The results present the most stable structures, binding energies, and differential binding energies of the gas phase alanine as n-waters were consecutively added. We also report vibrational frequencies and vibrational zero point energies using the normal mode analysis (NMA). The zero point corrected binding energies allow direct comparison of our results to previous theoretical studies at DFT and MP2 levels of theory<sup>1</sup>. Our simulations show that the DFTBA method describes hydration of alanine in reasonable agreement with conventional ab initio methods (DFT and MP2). The hydration of alanine preferably occurs in the vicinity of carboxyl group. Reference [1] Mullin, J. M.; Gordon, M. S. J. Phys. Chem. B 2009, 113, 8657-8669.

## **From Aromatic Amines to Cyclic Thiones**

**Elizabeth Mitchell and Danielle Swilley**

**Dr. Daniela Tapu**

College of Science and Mathematics  
Department of Chemistry and Biochemistry

Cyclic thiones have been widely used as ligands for main group elements and transition metals. The synthesis of such cyclic thione is described. A bismuth complex of this thione was prepared and characterized by IR and solution NMR spectroscopy.

# **Toward Novel Bimetallic Complexes Derived from N-Heterocyclic Carbenes**

**Gary Richoux, Christopher Ghattas, and Mahatab Chowdhury  
Dr. Daniela Tapu**

College of Science and Mathematics  
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In the last two decades N-heterocyclic carbenes have emerged as a powerful class of carbon-based ligands. Owing to their unique electronic and steric properties, they have been incorporated in a large variety of catalytically active metal complexes. The demand for carbenes with different 3D shapes and/or substitution patterns has rapidly increased. Therefore, it has become increasingly important to determine what effect the modification of the carbene's architecture has on its electronic properties, which largely determine the ligand behavior. One of the strategies that have been used to modify the ligand properties of imidazol-2-ylidenes is annulation with different carbo- and heterocyclic groups. Herein, the synthesis and structural characterization of a new class of fused N-heterocyclic carbene ligands with a rigid bidentate architecture as supports for homo- and heterometallic complexes will be reported.



# **Oxidative Inhibition of MAPKAP Kinase 2 is Predominately Mediated through the Activation Loop Cysteine**

**Emily Rye**

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MAPKAP kinase 2 (MK2) is a member of the mitogen activated protein kinase activated protein kinase family. MK2 is activated by p38 MAP kinase and this signaling pathway is important in cellular responses to inflammatory cytokines and stress (e.g. UV, osmotic shock, oxidative stress). Mammalian MK2 has 7 conserved cysteines, that are not known to participate in disulfide bonds. Among these is a cysteine residue in the activation loop that is conserved in other kinases including protein kinase A (PKA) and protein kinase C (PKC). PKA and PKC are inhibited by oxidative modification at this conserved cysteine residue. Two non-radioactive assays were used to assess MK2 activity after various treatments using either bacterially expressed active-MK2 or myc tagged MK2 immunoprecipitated from transiently transfected cells. MK2 was inhibited by oxidized glutathione in vitro and in cells by treatment with diamide. Mutation of the activation loop cysteine residue produced an active kinase that was considerably less sensitive to oxidative inhibition. This work was supported by the Research Corporation (CC6942), the NSF (MCB-1020261), and a Mentor Protégé grant from Kennesaw State University.

# **Vesicle Encapsulated Cisplatin Analogs: an Effort Towards Efficient Drug Delivery**

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Cisplatin is the frequently utilized metal-based drug despite of the fact that it has significant amount of side effects. To address those issues there is an ongoing search for better analogs of cisplatin. At the same time there has been quest for selective and efficient delivery method of metal-based drugs. Phospholipid vesicle encapsulated drug delivery is one of those approaches among others. In this work we have been utilizing 1,2-dioleoyl-sn-glycero-3-phosphocholine (DOPC) to prepare vesicles (liposomes) of 100 nm diameters. Cisplatin analogs  $\text{cis-[PtII(Hpgly)Cl}_2\text{]}$  and  $\text{[PtII(pala)Cl]}$  were synthesized and analyzed using elemental analysis, IR, UV-Vis and NMR. These complexes were encapsulated in DOPC vesicles and their reactions with Guanosine-5'-monophosphate (5'-GMP) were monitored by  $^1\text{H}$  NMR spectroscopy. Corresponding reactions in aqueous solutions were also investigated. The size of the vesicles will be determined using dynamic light scattering (DLS) technique.

# **An Ab Initio Benchmark and DFTB Validation Study of Structure and Dynamics of Hydrated Ions $H^+(H_2O)_n$ ( $n=1-4$ ) and $OH^-(H_2O)_n$ ( $n=1-3$ )**

**Mitchell Tuttle**

**Dr. Martina Kaledin**

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This project concentrates primarily on the accuracy of structural and dynamical parameters of hydrated ions at the density-functional based tight-binding (DFTBA) and DFT Becke, Lee, Yang and Parr (B3LYP) levels of theory and comparing the results to benchmark values of the Møller-Plesset perturbation theory at the second order (MP2). In order to validate the DFTBA method, we compared the structural parameters (bond lengths, bond angles, and vibrational frequencies) and energetics (binding energies) to experimental and theoretical studies<sup>1-3</sup>. DFTBA is a semi-empirical method which is parameterized via the results of DFT calculations. Computationally, DFTBA is much more efficient than DFT-B3LYP and MP2 and therefore can be used for large molecules. All MP2 and B3LYP computations were carried out using Gaussian 03, and DFTBA computations using Gaussian 09 program. References [1] Dalleska, N. F.; Honma, K.; Armentrout, P. B. J. Am. Chem. Soc. 1993, 115, 12125-12131. [2] Wei, D.; Proynov, E. I.; Milet, A.; Salahub, D. R. J. Phys. Chem. A 2000, 104, 2384-2395. [3] Xantheas, S. S.; J. Am. Chem. Soc. 1995, 117, 10373-10380.

## Characterization of Oxalate Oxidase

**Kelsey Uberto and Eric Hoffer**  
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Oxalate oxidase (E.C. 1.2.3.4) catalyzes the oxygen-dependent oxidation of oxalate to carbon dioxide in a reaction that is coupled with the formation of hydrogen peroxide (Scheme below). Although there is currently no structural information available for oxalate oxidase from *Ceriporiopsis subvermispora* (CsOxOx), sequence data and homology modeling indicate that it is the first manganese-containing bicupin enzyme identified that catalyzes this reaction. Interestingly, CsOxOx shares greatest sequence homology with bicupin microbial oxalate decarboxylases (OxDC). CsOxOx activity directly correlates with Mn content and other metals do not appear to be able to support catalysis. EPR spectra indicate that the Mn is present as Mn(II), and are consistent with the coordination environment expected from homology modeling with known X-ray crystal structures of oxalate decarboxylase from *Bacillus subtilis*. EPR spin-trapping experiments support the existence of an oxalate-derived radical species formed during turnover. We have determined that acetate and a number of other small molecule carboxylic acids are competitive inhibitors for oxalate in the CsOxOx catalyzed reaction. The pH dependence of this reaction suggests that the dominant contribution to catalysis comes from the monoprotonated form of oxalate binding to a form of the enzyme in which an active site carboxylic acid residue must be unprotonated.

# **Forensic Investigation: Concentration Levels of a Fake Powder Sold to the Victim**

**Clarisse Valdivieso and Katherine Drupiewski  
Dr. Huggins Z. Msimanga**

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The white powder found next to the victim at the crime scene was analyzed and its structure confirmed by Gas chromatography/Mass spectrometry (GC/MS). The victim's urine sample was analyzed to determine if the same drug was in the urine, and what the concentration levels of this drug were. In this investigation, a high-performance liquid chromatography equipped with a photodiode array detector (HPLC/PDA) was used to obtain data. The advantage of using a PDA is that it can identify peaks by providing the spectrum of the drug. A calibration method called internal standard method (ISM) was used to obtain a calibration curve. The urine sample was treated similarly with the internal standard. The purpose of using the internal standard was to correct for any possible sample losses during extraction and possible injection fluctuations which are possible for HPLC instruments. The results of our findings are discussed and reported in this poster.

# Synthesis, Characterization and Methanolysis of *N*-Acylated Ethanolamine Esters

**Mary Babb Visscher, Beau Routh, and Scott Burley  
Dr. Kevin P. Gwaltney and Dr. John Haseltine**

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The synthesis, characterization and methanolysis of *N*-acylated ethanolamine esters are reported. Acylation was achieved by pyridine-promoted reaction with acetic anhydride. Acylated molecules were characterized using  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR, and FT-IR spectroscopy. The *O*-acyl transfer reactivity of the products was studied by using  $^1\text{H}$  NMR to monitor the rate of methanolysis (deacylation) by *N,N*-diisopropylethylamine in methanol. Reaction rates were used to determine pseudo-first-order rate constants which between  $-1.2 \times 10^{-4} \text{ s}^{-1}$  and  $-6.37 \times 10^{-5} \text{ s}^{-1}$  depending on the compound. The ongoing synthesis and analysis of such molecules, especially those containing amino acids, are instrumental in exploring the relationship between long-range constitution and acyl-transfer reactivity. This work is expected to contribute to an understanding of the effects that a protein's constitution has on its fundamental reactivity and mechanisms

# **Structure and Energetics of Water Clusters with Anionic H-Bonding: A Theoretical Study of the X<sup>-</sup>.H<sub>2</sub>O (X=OH, O, F, Cl) Complexes**

**Helen Woldemicael**  
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In this theoretical computational work, the structure and energetics of water molecule interacting with negative ions were scrutinized. This work investigated periodic trends in hydrogen-bonding systems (hydrogen-bond lengths, binding energies, and vibrational frequencies) to elucidate the mechanism of proton transfer. We used density functional theory with B3LYP functional (DFT-B3LYP) and many-body perturbation theory to the second order (MP2) methods. All calculations were carried out using the Gaussian 09 and Gaussview5 programs. The results were compared to the previous theoretical work and available experimental observations. References [1] Roscioli, J. R.; Diken, E. G.; Johnson, M. A.; Horvath, S.; McCoy, A. B. *J. Phys. Chem. A* 2006, 110, 4943-4952.

## **A Peer-To-Peer Checkers Program**

**Luke Markey**  
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A common challenge for lower division computer science courses has been implementing projects that utilize basic programming concepts in an engaging and relevant manner. The objective of this research is to investigate ways to use peer-to-peer programming to play a game and manage shared data-structures between two programs. The problem consists of programming a game that is able to utilize a shared protocol which transmits multiple arrays to several methods within the constraints of lower division programming courses. Research for this project was conducted through Kennesaw State University's Programming Principles I & II curricula. The result of this research was a functional peer-to-peer checkers game programmed through basic programming knowledge and experience. In conclusion, this research showcases an engaging and relevant project that emphasizes an advanced understanding of basic programming concepts.



# Mutually Orthogonal Sudoku Latin Squares

**Nate Coursey**  
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A Latin square of order  $n$  is an  $n \times n$  matrix where each row and column is a permutation of the integers  $1, 2, \dots, n$ . It is trivial to show that there exists a Latin square for every positive integer  $n$ . Two Latin squares  $A$  and  $B$ , both of order  $n$ , are orthogonal if all  $n^2$  ordered pairs formed by juxtaposing the two matrices are unique. It is well known that there exist a pair of orthogonal Latin squares of order  $n$  for every positive integer  $n \neq 2, 6$ . A family of mutually orthogonal Latin squares (MOLS) of order  $n$  is a collection of Latin squares of order  $n$  such that each Latin square in the collection is orthogonal to every other Latin square in the collection. It is relatively easy to show that the maximum size of a collection of MOLS of order  $n$  is  $n-1$ . This bound is known to be tight if  $n=p^k$  for some prime  $p$ . Results for other values of  $n$  are the basis of many papers and still-open problems. Orthogonal Latin squares have applications in the construction of experimental designs, error correcting codes and cryptosystems. A gerechte design is an  $n \times n$  matrix where the matrix is partitioned into  $n$  regions  $S_1, S_2, \dots, S_n$  where each row, column and region is a permutation of the integers  $1, 2, \dots, n$ . The popular puzzle Sudoku is an example of a gerechte design. It is well known that there are 288 different Sudoku puzzles on the  $4 \times 4$  grid. Just as well known (but far more complex to compute) is the 2005 result by Felgenhauer and Jarvis that there exist 6,670,903,752,021,072,936,960 different Sudoku puzzles on the  $9 \times 9$  grid. This project takes the concept of orthogonal Latin squares and applies the idea to the gerechte design known as Sudoku. We explore the mathematics of simultaneously filling in two Sudoku grids such that all  $n^2$  ordered pairs formed by juxtaposing the matrices are unique.

# **Fractal Dimension or How Long is the Coast of Britain?**

**Nicole Dowling**

**Dr. Yuliya Babenko**

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The purpose of this project is to study the concept of non-integer dimension. We will begin by introducing the idea behind the fractional dimension which will lead to the rigorous definition and many interesting properties. We will then use it to investigate the dimension and length of several objects, in particular coastline of Great Britain and some architectural objects

# Gaussian Quadrature Formulas

**Jessica Fuller**  
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In most college level calculus courses, the problems presented are formulated in such a way that they can be solved for an exact answer. Outside of the classroom, however, problems are often extremely difficult or even impossible to solve. In these situations, we can use numerical methods to find an approximate answer. As part of our project we studied integration techniques, and when an explicit answer is either hard or not possible to find, the approximate methods. The purpose of this presentation is to compare Gaussian quadratures (where the nodes are chosen optimally) and other interpolation quadratures where the nodes are uniformly spaced -- in order to find the best approximation for a given integral. Integration is widely used in the fields of mathematics, science, and engineering. When the antiderivative of a function cannot be determined, we can approximate the definite integral by subdividing the function into intervals of equal length and replacing the function with a closely fitting polynomial, which we can integrate over each subinterval. The Trapezoidal Rule and Simpson's Rule are examples of this method, and as we increase the number of subintervals within our limits of integration, the error of our approximation decreases. Gaussian quadratures do not require the points at which we evaluate the integral to be uniformly distributed, and therefore we can optimize such points to give us the most accurate approximation. We shall show how to find such optimal points, discuss their general properties, and compare the results of numerical integration using Gaussian and other type of quadratures.

# Combinatorial Problems on the Triangular Chessboard

**Hong Lien Tran**

**Dr. Joe DeMaio**

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Puzzles on the chessboard have long been studied by mathematicians. Across the Board: The Mathematics of Chessboard Problems by John Watkins is an indispensable collection of mathematically themed chessboard problems. Naturally, we do not restrict ourselves only to the standard  $8 \times 8$  chessboard. Generalizations are quickly made to the square board of sides other than  $n=8$ ,  $m \times n$  rectangular boards and other variant surfaces. Chessboard problems are most frequently translated to the mathematical field of Graph Theory. Three classic problems in Graph Theory that appear again and again are those of minimum dominating sets, maximum independent sets and Hamiltonian cycles. For chessboards the question of a minimal dominating set transforms into how to threaten or occupy every square on the board with the fewest pieces. It is possible to dominate the  $8 \times 8$  board with 5 queens but impossible to dominate the same board with only 4 queens. Maximum independent sets become the problem of how to place the maximum number of non-attacking pieces. It is possible to place 8 non-attacking queens on the  $8 \times 8$  board but it is impossible to place 9 non-attacking queens on the same board. The existence of a Hamiltonian cycle becomes the quest to find a closed knight's tour. Can the knight use legal moves to visit every square on the board and return to its starting position? The answer is 'yes' for the  $8 \times 8$  board and almost all rectangular boards. Our project explores these three combinatorial problems on the variant triangular chessboard. First, moves of the pieces will be translated from the square board to the triangular board. Results of the three problems are established on the triangular board and compared to the known results of the square board.

# **Lightning McQueen: A “Jung” Stock Car’s Struggle with Balance in Life**

**Jeremy Tillman**

**Dr. David Thompson**

University College

First Year Experience Programs

[NOTE: This project received URCA funding from CETL. This paper will be presented (April 21) at the Popular Culture Association Conference.] This presentation explores Lightning McQueen’s personal growth in Pixar’s film *Cars* using Carl Jung’s idea that culture conditions the self. Jung’s concepts of “self” and the “unconscious” are applied as a foundation for analyzing situations in the film in which McQueen realizes what is important to an individual, recognizes and copes with individual weakness and vulnerability, and strives for balance in life. McQueen learns to recognize the dissonance between his self-perception as a heroic race car and public perception of him as a conceited, self-serving loner. With the help of the population of Radiator Springs, a classic town on Route 66 long-ago bypassed by an interstate highway, McQueen eventually learns to “doubt the absolute rightness of [his] assumptions” (Jung, 1957), to accept his weaknesses and convert them into new-found strengths such as friendship and compassion. When McQueen and Sally the Porsche drive through the breathtaking landscape of the American West to the abandoned Wheel Well Motel, he begins to find balance. Unlike the expected mental pattern of a “famous race car,” McQueen is content to follow Sally, rather than pass her. And he understands the concept of driving to “have a good time” instead of driving to “make good time.” The nostalgic setting of Radiator Springs and its long-time residents provides the change in culture McQueen needs to break through his established mental constructs and to grow into a responsible member of the community. Jung’s concepts provide the structure for analysis of McQueen’s personal growth in *Cars*.

# **Symbolic Convergence: Working Toward a “Group Hug” with Lightning McQueen in Radiator Springs**

**Lauren Walters**

**Dr. David Thompson**

University College

First Year Experience Programs

This project received URCA funding from CETL. This paper will be presented (April 21) at the Popular Culture Association Conference.] In a flash, the star of the film *Cars* (Pixar 2006), Lightning McQueen, finds himself alone and arrested in Radiator Springs, a rundown town on Route 66 populated by highly diverse individuals who seem to have only a misplaced sense of nostalgia to bind them as a community. This presentation applies Bormann’s Symbolic Convergence Theory to examine McQueen’s “acculturation” into this group of apparent misfits. This analysis focuses on Bormann’s concepts of reoccurring communication forms, group consciousness, and shared fantasies. Bormann’s Symbolic Convergence Theory is used to study small group communication, in particular the degree of cohesion among group members. In other words, symbolic convergence is cohesion, or like-mindedness. Bormann (1990) says that “the sharing of group fantasies creates symbolic convergence.” In this case, the term fantasy simply means “the creative and imaginative interpretation of events that fulfills a psychological or rhetorical need” (Bormann 1985). In the film, the residents of Radiator Springs “need” their town restored to the glory days of Route 66. McQueen “needs” friendship, love, and a sense of compassion. McQueen, the interloper, experiences dramatic personal growth. For example, one indication of symbolic convergence is use by group members of “we” rather than “I,” and “us” instead of “me” (Young 1998). McQueen drops his selfish mannerisms to think first of the collective community. In a way, McQueen becomes the mediator who helps the inhabitants of Radiator Springs replace empty nostalgia with community pride.

# **Human Resources in Practice: An Employee Manual for RUN4LIFE**

**Sarah Abbey**

**Dr. Jennifer Wade-Berg**

Wellstar College of Health and Human Services  
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Frequently, due to a lack of funding or time, the creation of a human resources manual is overlooked in organizations until a negative employee-related incident occurs. Nonprofits especially are hesitant to create a manual due to the lack of financial resources allocated towards human resources development. However, in many organizations the policies outlined in a manual plays an important role in resolving internal and external conflicts, expressing expectations for employees, guarding against lawsuits, and assisting in employee socialization. Human resources are particularly important to the nonprofit RUN4LIFE at this time because the Executive Director is considering hiring more employees. It would be beneficial for the organization to develop their human resources so employees could be more readily socialized into the organization through learning its code of ethics, basic rules and expectations, as well as current policies and practices. The manual establishes the organization's expectations for working and communicating in a virtual world. Little research exists regarding the content of an employee manual for nonprofits and the adaptations that must be made for working in a virtual organization. To fill this gap, various forms of qualitative research were completed to better understand the role of human resources in nonprofit organizations, including a content analysis of various human resource manuals from both nonprofit and for-profit companies, a literature review of relevant journals, interviews with the Executive Director of RUN4LIFE, and focus groups with the staff of the organization. Four research questions were explored: (1) What factors motivate an organization to create an employee manual?; (2) How can an employee manual be used to create structure within an organization?; (3) What types of structure, policies, etc. should be included in the manual to facilitate the socialization of new employees?; and (4) How can an employee manual be used to foster communication and collaboration in a virtual team? From the completed research, an employee manual was developed that incorporated research findings. The larger implications for the organization as well as other nonprofits are that human resource manuals are a low cost, high return method for formalization of organizational structure. Additionally, with the inclusion of a Code of Ethics, manuals aid in the establishment of an organizational culture, and, if properly implemented, can foster collaboration and unity in the organization.

# **A Review of Social Enterprise: A Case Study Examination**

**Aimee Dubé**

**Dr. Jennifer Wade-Berg and Dr. Ardith Peters**

Wellstar College of Health and Human Services  
Department of Health and Human Services

Social enterprise is an emerging field of study. One may find that nonprofit practitioners utilize techniques associated with social enterprise for a myriad of reasons, including: to combat the unpredictability of philanthropic funding, to add innovations to their programs and services, and to fulfill their mission. Our understanding of social enterprise, however, remains at its infancy. Additionally, research is just emerging that speaks to how social enterprise fits within the field of social entrepreneurship and social innovation. This literature comes from various perspectives and disciplines, such as Business/Management, Public Administration, Nonprofit Administration, and Social Work. Interestingly, the perspectives from these various disciplines have yet to be reconciled. This research seeks to add to the discussion by examining the continuum that exists between social enterprises, social entrepreneurships and corporate social responsibility. Next, this research seeks to address the question of whether or not a private - for profit organization be a social enterprise and what are the organizational characteristics that drive these types of organizations. Through case study examination of a local Atlanta business (for the purposes of this research a pseudonym of Goods Can Make a Difference – GCMD- will be used), data were generated from a content review of the organization's internal operating documents and observation. Next, a systems approach was used to analyze the functions of the organization. Questions of leadership style, program evaluation, strategic planning, and etc. were explored and evaluated. Findings generated from the study reinforce the types of organizational characteristics that distinguish an organization that characterizes itself as a social enterprise verses one that is just a socially responsible business. Additionally, this research shows how shifting priorities can affect the overall mission of an organization that seeks to be a social enterprise.



## *2011 Undergraduate Research Reception Program*

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### ***Department of Elementary and Early Childhood Education***

*Teaching to the Test: How Federal Mandates Affect Elementary Educators' Teaching Styles*

Ashley Vande Corput

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## **College of the Arts**

### ***School of Music***

*Science Fiction as Social Critique in 20th-Century Italian Literature*

Nicholas Carilli

Faculty Mentor: Dr. Federica Santini

### ***Department of Theatre, Performance Studies, and Dance***

*The Most Massive Woman Wins dramaturgy*

Minoo Bassery

Faculty Mentor: Dr. Jane Barnette

*99 Cents Dreams: A Story*

Emilee Beech

Faculty Mentor: Dr. Tony Grooms

*The Good Person of Szechuan dramaturgy*

Josh Brook

Faculty Mentor: Dr. Jane Barnette

*The Good Person of Szechuan dramaturgy*

Mershawn Foley

Faculty Mentor: Dr. Jane Barnette

*Highlights from the Chautauqua/Colloquia*

Melissa Harvey

Faculty Mentor: Dr. Jane Barnette

*Highlights from the Chautauqua/Colloquia*

Laura Hettinger

Faculty Mentor: Dr. Jane Barnette

*Annie Get Your Gun* dramaturgy  
A.J. Kuemmel  
Faculty Mentor: Dr. Jane Barnette

*Dionysian Elements in Sarah Ruhl's Melancholy Play*  
Avery Rabbitt  
Faculty Mentor: Dr. Jim Davis

*The Unbearable Ruhlness of Being*  
Haylee Scott  
Faculty Mentor: Dr. Jane Barnette

*Highlights from the Chautauqua/Colloquia*  
Tara Spear  
Faculty Mentor: Dr. Jane Barnette

*The Real Inspector Hound* dramaturgy  
Lauren Winecoff  
Faculty Mentor: Dr. Jane Barnette

## **College of Humanities and Social Sciences**

### ***Department of Communication***

*Pushing the Envelope of Relationship Management Theory: Specifics for Advancing Practice*  
Desirae Johnson  
Faculty Mentor: Dr. Deanna Womack

*Comparing Parasocial and Face-to-face Interpersonal Relationships: Implications for Media Theory*  
Brian Wardach  
Faculty Mentor: Dr. Deanna Womack

### ***Department of English***

*Jordan and Julie #6: Jordan's Secret Origin: A Short Story*  
Jake Baumgart  
Faculty Mentor: Dr. Tony Grooms

*"We Cannot Escape this Curse": Kertész's Non-Canonical Style and the Continuity of Auschwitz*  
Valerie Bourgeois  
Faculty Mentor: Dr. Katarina Gephardt

*Green Architecture in Georgia: The Good, the Bad, and the Inexcusably Ugly*

Katherine McDowell

Faculty Mentor: Dr. Elizabeth Giddens

*Pronominal Usage in Spam Emails: A Corpus-Based Study of the Rhetorical Function of Scams and Advertisements*

Dhanashree Thorat

Faculty Mentor: Dr. Chris Palmer

*Undergraduate Research: Student Perceptions*

Dhanashree Thorat

Faculty Mentor: Dr. Amy Buddie

*The Rhetoric of Atticus Finch*

Natalie Varner

Faculty Mentor: Dr. Beth Daniell

*Chattahoochee River - Pollution, its Effects, and Us*

Megan Walters

Faculty Mentor: Dr. Elizabeth Giddens

## **Department of Foreign Languages**

*Foreign Language Service-Learning in Elementary Schools*

\*\*Jennifer Allen

Faculty Mentor: Dr. Sabine Smith

*The Theme of Death in the Final Poems of Alfonsina Storni*

\*\*Megan Alpern

Faculty Mentor: Dr. June Laval

*"Los elementos vanguardistas en la obra de Ernestina de Champourcin", forthcoming in Volume III of The Kennesaw Tower*

Marjorie Araujo

Faculty Mentors: Dr. Robert Simon, Dr. Lynn Fedeli and the Editorial Board of The Kennesaw Tower

*Writing with Purpose: The Impact of a Real Audience on the Writing Outcome of French Students*

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*Type of Preliminary Pattern Jury Instructions Do Influence Jurors' Attitudes Toward Electronic Research and Discussion*

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*Electronic Misconduct by Jurors and Need for Cognition: Understanding and Applying Pattern Jury Instructions*

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*Social Behavior and Activity Patterns in a Mixed-Species Group of Primates at Zoo Atlanta*

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*Defining the Non-Traditional Student: Are they Really that Different from Traditional Students?*

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*Traditional and Non-Traditional Student Graduate School Preparedness*

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*AID Atlanta: Project Management*

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Jessica Hamby

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*Prescribing the Good Wife: A Content Analysis of Drug Advertisements in Southern Living Magazine*

Katie McIntyre

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*Student Organization Affiliation and Self-Esteem: An Exploratory Study*

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*Attitudes Towards Immigrants Among Georgia College Students*

Daniel Pass

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*Drug Use in College: The Effect of Declared Major, Gender and Race*

Brittany Rivere

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*Does Ion-2 Function Cell Autonomously with Kal-1 During Axon Branching?*

\*\*Austin Howard

Faculty Mentor: Dr. Martin Hudson

*Chimpanzee Cognition and Communication*

Tamara Morton

Faculty Mentor: Dr. Jared Taglialatela

*Characterizing the C. Elegans Try-2(ok2531) Mutant and its Role in the KAL-1/anosmin Pathway*

\*\*Melissa Ponce

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*Examining the Effects of Water Temperature on Campostoma Oligolepis Metabolic Scope*

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Faculty Mentor: Dr. Scott Reese

*Life History of Central Stonerollers (Campostoma Oligolepis) in Urban and Rural Streams*

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*Gold Nanoparticle and Metal Coordination Compound Conjugates*

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Shannon Allen

Faculty Mentor: Dr. Huggins Z. Msimanga

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Lisa Marie Walsh

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*Life Histories of Affluent Adolescent Substance Abusers*

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*\*\*Denotes a student researcher who received CETL funding in 2010-2011*

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- θ Andrea Dowis, Graphic Design Student

April 26, 2011

Dear Mentors and Mentees,

We wish to thank you for attending this special ceremony in honor of both of you for your engagement in scholarship activities in 2010-2011. Being recognized by the Kennesaw State University President Daniel Papp and Provost Ken Harmon indicates our gratitude for your dedication to advancing undergraduate scholarship and creative activities at KSU.

We hope that your experience has been significant and trans-formative. Your journey has only begun. The two of you will interact for years to come and become professional colleagues. At KSU we believe that undergraduate scholarship is an essential component of our mission to mentor students and provides an opportunity to deepen your learning and ultimate post-graduate success. This mentoring relationship will not only increase retention, progression and graduation success but will also create a pool of committed, successful and active alumni.

We thank you for engaging in the process of discovery, not only in research and creative activities, but also in the professional relationship.

Sincerely,

A handwritten signature in black ink, reading "Michele DiPietro". The signature is written in a cursive style with a vertical line to the left of the first name.

Michele DiPietro, Ph.D.  
Associate Professor of Statistics and  
Executive Director of CETL

A handwritten signature in black ink, reading "Amy Buddie". The signature is written in a cursive style.

Amy Buddie, Ph.D.  
Associate Professor of Psychology and  
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