

Boston College

UNDERGRADUATE

RESEARCH

SYMPOSIUM



February 4, 2011

Fulton Hall

Boston College
Undergraduate Research Symposium
February 4, 2011



SCHEDULE OF EVENTS

12:30	Opening Session	Fulton Honors Library
	Welcoming Remarks by Prof. Donald L. Hafner, Vice Provost for Undergraduate Academic Affairs	
	Keynote Address by Prof. Elizabeth Kensinger, Psychology Department	
1:00 – 2:00pm	Session I	
	Poster Presentations	Fulton Common
	Panel One: Ancient Cultures, Modern Questions	Fulton Honors Library
	Panel Two: Politics and Ethics	Fulton 240
	Panel Three: Science and Technology at the Edge	Fulton 310
	Panel Four: Issues in Education	Fulton 210
2:00 – 3:00pm	Session II	
	Panel Five: The Arts in Many Forms	Fulton Honors Library
	Panel Six: Economics and Social Change	Fulton 310
	Panel Seven: The College Years	Fulton 240
	Panel Eight: Healthcare Challenges	Fulton 210
3:00 – 4:00pm	Session III	
	Panel Nine: Politics – Global and Local	Fulton Honors Library
	Panel Ten: Care-giving	Fulton 145
	Panel Eleven: Searching for Identity	Fulton 240
	Panel Twelve: Discovery in Another Language	Fulton 310
4:00 – 5:00pm	Reception and Refreshments	F Fulton Honors Library
	Concluding Ceremony: Commendations for Best Presentations	

Sebastian Agredo
Class of Class of 2011

The Mysticism of Meister Eckhart

Throughout time, mankind has been involved in a religious and philosophical inquiry to understand God and the influence God has in the lives of his created beings. In the 14th century Rhineland region of Germany, a preaching friar and mystic by the name of Meister Eckhart embarked on a mission to uncover the foundation and limits of human knowledge of God. A gifted scholar and passionate orator, Eckhart traveled throughout the Christian realm to spread the word of his sermons and reveal to his audience that knowledge of God is far more complicated and at the same time far too simple for ordinary human comprehension. Eckhart's writings and scholarship provided a solid foundation for German Mysticism, which helped to shape the philosophy and theology in the Rhineland and invigorate the philosophical enthusiasm of future generations in Germany.

Tair Akhmejanov
Class of 2012

Mathematics behind Cryptography: The Study of Cryptographic Algorithms, Quantum Computing, and the Class NP

Is it possible for two people to play a fair game of poker over the phone? The answer is both Yes and No, as was mathematically demonstrated by Rivest, Shamir, and Adelman. The principles of this mathematical proof manifest themselves in many cryptographic schemes relied upon for secure transmission of information. The Rivest, Shamir, Adelman encryption scheme is the main protocol used in banking systems around the world. It relies on the use of a public key, as well as a private key that is supposedly secure. However, there is a caveat: the security of the private key relies entirely on the fact that, to this day, there is no efficient algorithm for factoring large integers. Many other encryption schemes also rely on the computational difficulty of a class of problems called NP, which although solvable, would require modern computers more time to solve than the lifetime of the universe. However, new quantum computers are being built in attempts to solve such problems efficiently, and strands of DNA have been “programmed” to solve some special cases of these problems.

Kathryn Boyle

Class of 2011

The Nutritional Status of 3-5 Year Olds in Rural Jamaica

Malnutrition is a leading cause of morbidity and mortality for children in the developing world. School settings are an important place to address nutritional issues. This study collected nutritional information and anthropometric measurements on 149 children, aged 3-5 years, in a non-state supported school in an economically challenged rural location in Jamaica during a two-year period. The results indicate that several children were situated at extreme percentiles of growth and height standards for age and gender. The findings suggest that children who attend school on a regular basis may have better health than those who are not in school, due to better access to educational resources. It is with hope that this analysis will add to the current knowledge of childhood nutritional issues in Jamaica and provide support for future research. [With Melissa Sutherland, PhD, FNP]

Kasey Brown

Class of 2012

Ballytobin: Art as Empowerment for People with Special Needs

Camphill Ballytobin, Ireland, is a residential community for children and adults with special needs. For six weeks, I studied how inclusive art — such as theater, painting, music, and dance — can be used as vehicles for empowerment, expression, and equality. I interviewed art and drama therapists, participated in the community's festivals, plays, and concerts, and engaged in art with the residents, to understand the importance of art as a form of communication. Among the residents were several with severe autism who were unable to speak and used music as their mode of communication. I also met with artists at the Kilkenny Collective for Arts Talent, a center whose aim is to create “an environment in which artists and students from different backgrounds and abilities can work and create together, and in which life-long learning is an opportunity for everyone.”

Mary Byrnes

Class of 2011

School Nurses and Primary Care Providers: Collaborating to Improve Asthma Management in School-aged Children

New England has the highest rate of asthma in the country, so it is important to determine the management of asthma in school-aged children. The purpose of this research study is to determine the most prevalent asthma management practices in Massachusetts schools, to establish the extent to which school nurses collaborate with primary care providers regarding asthma management, and to identify the barriers to managing asthma in Massachusetts schools. A web-based survey yielded usable responses from 433 school nurses. Analysis of the responses suggests that models are needed to improve collaboration around asthma management for school-aged children between primary care providers and school nurses, in order to establish an interdisciplinary, community-based, and system-level intervention.

Thomas Carroll

Class of 2013

Exploring the Foundations of Non-Profit Organizations

This project explored the keys to successful creation and operation of a non-profit organization, especially during the recent economic crisis. I had previously studied the business structures and strategies of “for-profit” organizations and wanted to explore how those business strategies might need to differ for a nonprofit organization to succeed. I created a mock non-profit organization entitled, Here If You Need U.S., that focuses on education, health care, and legal rights in the United States, and then conducted interviews with high-level representatives from three non-profit organizations ranging in size from the state level to the international level. I learned how their respective organizations were created, the steps taken to maintain the organization, and what they recommended to an individual interested in creating a non-profit organization. The answers were very insightful, and sometimes quite surprising, and show that many for-profit business strategies are also relevant to non-profit organizations.

Okello Carter

Class of 2012

New York's Best-Kept Secret: A Study of Sexual Identity and the Harlem Renaissance

The Harlem Renaissance has been widely acknowledged as a fundamental moment in black history, as well as American history, that saw an unprecedented growth of African-American culture in the arts. While its importance in black history has been widely studied and recognized, its connection to the history of sexuality in America seems to have been generally overlooked. The objective of this research project was to explore the “gay subculture” that formed in New York during the Harlem Renaissance, and to gain experience conducting historical research with primary sources by studying the personal correspondence of Renaissance artists and articles from Harlem’s most popular newspaper, The Amsterdam News.

Melanie Chang

Class of 2013

Students’ Knowledge and Attitudes Toward Working with the Elderly: A Scholarly Literature Review

As the older adult population in America increases, it is becoming more crucial for nursing students to learn about comprehensive care for the older adult. Yet this is not a popular field of study among current nursing students. It is important to reveal students’ knowledge and attitudes to enable various changes to be made, whether in the curriculum or in students’ perceptions. As the basis for designing a future study to assess these questions, this project focused on a literature search and consultation with expert faculty, to identify what is known about the subject and the gaps remaining in the science. The literature review has also identified the appropriate instruments to study these areas, which will be utilized in a future research study. [with Stacey Barone]

Shirley Chen

Class of 2012

Las Madres de Plaza de Mayo: NGOs in Social and Political Change in Argentina

Las Madres de La Plaza de Mayo is an organization of women that began as a reaction to the “disappearance” of their sons and daughters during the military regime in Argentina of the mid-1970s. Las Madres de La Plaza de Mayo became one of the only groups that publicly and vocally protested the military government’s crimes against humanity, often resulting in the disappearance of the organization’s own members. Through its persistence, determination, and unique appeal and membership, the organization made great strides in its goal to recover missing persons and bring justice to the perpetrators of these crimes. The organization has undergone many changes over the years, yet it continues to advocate for the families of the disappeared in a continuing effort to expose the travesties of the military regime.

Han Cho

Class of 2011

Finding Movement and Rhythm: Collision of Ethnic Worlds in Dance

As an Asian-American, I straddle two different worlds that are joined by a single hyphen and by the individual that is me. I struggle to adhere to the values and rules of one world, while also trying to forge an identity separate from my otherness in the other. For my project, I created an autobiographical solo dance performance that highlighted this struggle, and demonstrated the ramifications when these two worlds collide and intersect, especially when one is considered neither this nor that or both. An informal discussion with the audience that followed the performance revealed to me of the larger issues that I had inadvertently touched upon regarding ethnic identity, sexuality, and family.

Jacquelyn Clancy

Class of 2011

Assessing Biophysical Risk for Breast Cancer: Using the Gail model with Older Women
Breast cancer is a significant disease for women in the United States, resulting in roughly 40,000 deaths each year. Highest incidence of breast cancer is in women ages 75-79 years, yet mammography screening is significantly underutilized by 65-74 year olds. How women perceive a personal risk of developing breast cancer is believed to be a significant factor in whether women get mammography screening, but little is known about breast cancer risk perception in older women. Biophysical risk can be computed by scoring answers to a series of risk questions based on an interactive statistical model widely known as the Gail model. A web-based program allows individuals to accurately compute personal biophysical risk scores, a potentially useful incentive to mammography screening. This study describes how a sample of older women responded to survey questions used to calculate individual Gail scores and identifies specific problematic items that subjects were unwilling or unable to answer. [Funded by: Susan G. Komen Foundation]

Darcy Corcoran

Class of 2011

Quisnam sum ego: The Influence of Self Esteem and Family Dynamics on an Adoptee's Decision to Search for Biological Parents

Many adults who were adopted as children feel a pressing need to search for their biological parents. This study was designed to test two competing hypotheses: (1) an adopted person's desire to search may be predicted by positive factors such as psychological adjustment, including self-esteem and high quality relationships with siblings because these positive factors may provide the security to search; or (2) the desire to search may be predicted by negative factors such as low psychological adjustment and poor quality sibling relationships because these negative factors may lessen the need felt by the adoptee to search. Participants in this study were college students, ages 18-22 years. The subjects included those who were adopted before their first birthday and a non-adopted control group, with about 40 participants in each group. The findings of such research are important in filling gaps in our understanding of the dynamics of searching behavior.

Michael Cuttler

Class of 2012

Under the Sea: Learning New Ways of Studying What Lies Beneath

This project had both research goals and personal goals. The research goals were to gain an understanding of the difference between studying shallow water and deep-sea processes and to experience working at a professional research institution. The personal goals of this project were to experience studying abroad and to improve my Spanish language skills. During the summer, I lived in Barcelona, Spain, and worked with Dr. Pere Puig at the Institut de Ciències del Mar. At the Institut, I participated in the initial preparation of a deep-sea sediment transport study in the Mediterranean Sea. This included researching the instruments and techniques to be used, and also assembling and testing these instruments. These new instrumentation skills and techniques will be used this coming summer and next year for my senior thesis research.

Zachary Desmond

Class of 2012

“A Journey Towards You”: Finding the Self On-Stage

A simple mantra repeated daily for seven weeks: “This is a journey towards you.” At Circle in the Square Theater Conservatory, acting is not about becoming somebody else, but becoming yourself. The actor’s most fundamental responsibility is to truly know his or her medium of artistic expression: the body, the mind, the voice. Acting is the expression of human experience in dramatically arranged circumstances (or “a play”). The only way to express human experience honestly is to understand the elements of moving, speaking, and living as a human being. Conveniently, all the tools an actor needs are at his or her immediate disposal. Acting is not about pretending to be a character, but being and knowing so deeply what it means to be human, that one’s humanity becomes malleable. Rather than pretense and deception, the defining virtue of an actor’s craft is truth. Truly understanding our own humanity is the only way we may truly see another’s.

Kate Donohue

Class of 2013

Going Beyond Welfare: Walking a Mile in the Shoes of Others

We are often told to imagine what life is like from another person's perspective, to walk a mile in their shoes. Yet seldom do we take time to know these others personally. Without this crucial step, it is far too easy to exaggerate differences and downplay similarities, widening the gap between two seemingly different groups of people. This past summer, I was able to bridge such a gap by interning at a homeless shelter, the Hope Center. Through working with social workers and interacting with the clients, I was able to identify shortcomings in aid programs and possible solutions. More important, I gained an understanding of the lives of the impoverished and the similarities that all human beings share. Forming these connections and gaining an insight into another's life is the first step to change, for it becomes impossible to turn a blind eye to injustices, once you know the people who are suffering from them.

Keegan Dougherty

Class of 2012

¡Cochabamba! The Politics of Watershed Management in the Developing World

In 2000, Cochabamba, Bolivia, was the site of a so-called "Water War" that has since come to represent a victory for water rights activists in the global fight against the commoditization of humanity's most important resource. A decade after they blocked the costly privatized water contract with the transnational corporation Bechtel and returned water management to the municipal government, Cochabambinos continue to deal with poor water quality and limited service for those living on the outskirts of the city. Many NGOs have stepped in to explore water management solutions. I interned for Centro AGUA, one such NGO, while attending a six-week intensive Spanish course at the Maryknoll Institute. I gained an understanding of local water management styles, aided in data collection for a study of water contamination in an slum community, and improved my Spanish language fluency. Although I reached no sweeping conclusions about water management in developing countries like Bolivia, I learned the intricacies of the problems facing the Cochabambinos of the world.

Andrea Dzwinyk

Class of 2011

The Influence of Western States on Ukrainian Political Development

Ukraine's political development since independence in 1991 has been tumultuous, and the country's path to democracy has been difficult. The United States and countries in Western Europe moved to establish completely new relationships with Ukraine after the fall of the Soviet Union, and some of these relationships helped Ukraine along its path to democracy. The goal of this project was to conduct research in one of Ukraine's western universities and to meet with specialists on Ukrainian politics and foreign policy. Through this project I sought to become better informed on the topic of Ukrainian political development and to improve my Ukrainian language skills. This research project will support a senior thesis, which focuses on the North American Diaspora's influence on Ukraine's democratization.

Rebecca Edwalds

Class of 2011

The Faces of Arabic: Development of Dialects

Arabic is spoken in many places in the Middle East, which to Westerners probably implies considerable commonality. Yet 'Arabic' is a blanket term covering many dialects. This may not seem to be a problem at first, as English is the blanket term for English dialects, such as British, Australian, and Irish English. These English dialects, however, are mutually comprehensible, despite some differences in vocabularies. The Arabic dialects, in contrast, share a common source and yet are mutually unintelligible. Referring to all of these dialects as Arabic is essentially the same as referring to all the Romance Languages as mere dialects of Latin. By tracing their divergent paths of development, I will discuss how the Arabic dialects are separate languages as much as the Romance Languages are.

Elizabeth Fair

Class of 2012

Autism Spectrum Disorder Intervention

Autism Spectrum Disorder (ASD) is a disorder that distorts a person's social interactions, sensory perceptions, and behavior. Autism appears to be increasing at an alarming rate among children. Because these children require specialized services to help them with their education and daily activities, it is important for clinicians and therapists to have a working knowledge of effective therapies. In this project, I sought to learn more about how children with autism are being treated and to learn how to implement the techniques of behaviorally-oriented therapies. I gained experience working with children with ASD by interacting with them in classroom and camp settings. As a result, I have learned several approaches to working with children with ASD to help them with social skills and behavioral difficulties.

Ryan Folio

Class of 2012

Syrian Newspapers in an Era of Economic Reform

With the support of a research grant, I lived in Damascus, Syria, for two months last summer, doing intensive Arabic language study, researching the economic problems that have plagued Syria for years, and analyzing the reports of economic reform in Arabic news media. As Syria takes an increasingly prominent role on the international stage, the country's economic well-being will be critical to regional stability and prosperity. In my presentation, I will discuss my findings and experiences, commenting on the quality of the Syrian news apparatus, and its implications for the government of Bashar al-Assad, as well as for Syrians in general.

David Francazio

Class of 2011

On the Track of Coyotes in the Narragansett Basin

Coyote attacks on people are steadily on the rise, as increased interactions with humans leads to an unnatural boldness among coyotes. This summer, I worked with Dr. Numi Mitchell of the Narragansett Bay Coyote Study learning the habits and ecology of these fascinating predators. I found that reliance by coyotes on humans has been steadily increasing, with coyotes reaping the benefits of increased availability of road kill, vulnerable pets, and leftover food scraps. Scientists believe that a lack of threatening behavior from humans is causing coyotes to lose their natural fear of people. Also, with coyote attacks and coyote habituation on the rise, there is an increasing likelihood of lawsuits. When people deliberately provide food to coyotes and thus encourage them to approach humans, to what extent are such people liable under the law if the coyote then attacks a child? I spent the summer tracking coyotes and studying approaches for more integrated coyote management.

Ian F. Graham

Class of 2012

The Web of American Democracy: The Role of Social Networking in National Politics

The Obama campaign was renown for using emerging technologies and grassroots networking to build an unprecedented political movement en route to victory in the 2008 presidential election. Initially considered a long shot to win the Democratic nomination, Barack Obama carved an alternative path to the White House by reaching out to individuals across the country to form a spirited activist movement bent on bringing change to “politics as usual” in Washington. The campaign revolutionized the processes for spreading influence, networking activists, fund-raising online, tracking opinion, and marketing its message through popular digital mediums. The cutting-edge technologies and online capabilities introduced during the election have altered conventional campaign strategy and have the potential to dissolve many barriers to political participation. Moving forward, candidates will continue to refine these techniques, improve voter outreach programs, and ultimately make American politics more inclusive.

Adam Gross

Class of 2012

Funerary Archaeology: The Importance of the Necropolis of Sanisera

After a month of excavating the necropolis of the ancient city of Sanisera on the island of Menorca, Spain, I have learned the importance of funerary archaeology. I refined my skills as an archaeologist, while simultaneously learning new skills specific to funerary archaeology. I will discuss my experience on this excavation, including the specific skills I learned in bone cleaning and analysis. It is a delicate matter to excavate human remains that have been entombed for over fifteen hundred years. I will describe the city of Sanisera and the necropolis there, and discuss how the findings from this necropolis will allow us to answer a question about the island that has long been a puzzle.

Beth Harvey

Class of 2013

The Evolution of Spirituality Research Based on the Roy Adaptation Model

Since its conception in 1964 by Sr. Callista Roy, the Roy Adaptation Model (RAM) has become one of the most widely used nursing theories, serving as the theoretical backbone for hundreds of studies. RAM-based research seeks to better understand the role of spirituality in nursing care over time. By embracing spirituality as an important determinate for a patient's success, nurses can begin to offer truly holistic nursing care by addressing a patient's spiritual needs. This study tracks the increase in RAM-based studies from 1970-2010, and also analyzes the development of RAM-based studies on spirituality during the same time period. The sample consists of 350 studies based on the RAM, 41 of which employ spirituality as a variable.

Adriana Henquen

Class of 2012

Politics of Early Education & Care in Massachusetts: Messages, Strategies, & Alignment

In 2005, Massachusetts became the first state in the nation to create a Department of Early Education and Care, with a focus on pre-kindergarten programs. This innovation was a result of advocacy efforts that gained attention and support through several strategies. Policy makers and advocates emphasized new brain research, which revealed a relationship between access to high quality early education and later school success (especially for low income children). Economic arguments showed that investments in early education could potentially yield up to a 16% return on investment, and emphasized the economic benefits to the increasing number of working mothers in the work force. Finally, an rising demand for accountability in the K-12 system for closing achievement gaps, especially for at-risk children, motivated state leaders to act. This research project explores the rise of the department and its continuing relationship with its early advocates as the department evolves and redefines itself.

Benjamin Key

Class of 2011

Motivations of Genre: Realism and Fantasy in Scottish Drama

Drama can be a unifier of the disparate. The form allowed two very different men – a starving miner and a misanthropic writer – to create two masterpieces of Scottish drama, one beloved and one forgotten. Two outwardly different plays, Joe Corrie's *In Time O' Strife* and J.M. Barrie's *Peter Pan*, are interestingly similar in the motivations of the writers. Corrie's work deals with the struggle of a Scottish mining community, both desperate and staunchly supportive of the union strikes that cripple its industry. Barrie's focus is the bittersweet passage from childhood to adulthood, and the rare being who is incapable of growing up. Both playwrights attempt to come to terms with their respective conflicts and reach what is at least a mildly hopeful resolution, even in the wake of loss. Ultimately, the dissimilar men created tales of the perseverance of people who find themselves in the tumult of strife. Their theme transcends the limitations of genre and affects their audiences universally.

Christina - Minsun Kim

Class of 2011

"The Trial of All Crimes Shall Be By Jury"

In the United States, the right to a jury in criminal cases appears in both the original Constitution and the Bill of Rights. After more than 200 years, the jury process continues as a palladium of democratic justice. Until recently, however, the system of jury trial had not taken root in Asia. South Korea held its first trial by jury in 2008, and Japan followed in 2009 with a mixed system of professional and lay judges. The justification for the adoption of jury trials rested on an asserted connection between lay participation in judicial decision-making and the endurance of democratic governance. Prior to adoption, the proposed system of jury trials was widely criticized by skeptics, including the public, lawyers, and judges. Following adoption, however, the governments of both Japan and South Korea have taken active steps to increase public confidence and peaceful acceptance of the system.

Katherine Koniars

Class of 2011

Socioeconomic Status Disparities in Access to Pediatric Cochlear Implants: A Comparison between the United States and the United Kingdom

Profound hearing loss affects thousands of people in the United States and the United Kingdom, with a higher incidence among low socioeconomic status patients. A cochlear implant is a surgically implanted device that improves communication and quality of life for profoundly hearing impaired individuals. This project explored disparities in healthcare encountered by low socio-economic status patients in the US free-market healthcare system and the UK National Health Service. This paper addresses factors that contribute to the disparities between patients who receive cochlear implants and those who do not, such as household income, parental characteristics, and payment methods. The results from each country will be compared, and possible approaches to reduce and eventually eliminate healthcare disparities between patients of different socioeconomic status will be proposed.

Karen Kovaka

Class of 2012

The Science of Hunger: Development Agriculture in Magadi, India

This project was an internship with the International Water Management Institute that involved a two-month fieldwork placement with a microfinance and agricultural development initiative in a peri-urban Indian village. The fieldwork component of the internship combined direct collaboration with farmers in planting nutritional gardens for members of the microfinance association, and partnership with the University of Agricultural Sciences, Bangalore, to investigate waste-water irrigation practices in the village of Magadi. In addition, the internship provided opportunities to observe the interactions of farmers, NGOs, educational institutions, government offices, and local stakeholders concerned with agricultural development in India. These experiences provided insight into the emerging emphasis on urban agriculture as an overlooked, yet significant, aspect of the package of practices needed to address hunger and environmental degradation in the developing world.

Abigail Letak

Class of 2012

Experience and Belief: Catholic Adolescents' Experience and Interpretation of Catholic Teachings and Modern Societal Values

In previous centuries, when the Catholic Church was inextricably tied to both political and social aspects of life, societal values were Catholic values. Over time, however, the tension between societal values and Catholic values has grown, especially regarding issues of intimacy and sexuality. The term "Catholic guilt" is casually used to describe what adolescents feel when they drift from Catholic values and yield to the pressures of society, and yet little is known about the phenomenon itself. As private schools refuse to talk about birth control and the reality of how most teenage relationships function today, and public schools refuse to talk about what role faith may play in relationships, Catholic adolescents are left to navigate the world of dating, sexuality, and intimacy with little guidance. This project explored how Catholic adolescents experience and interpret the intersection of their faith and the values of modern society, through interviews with high school juniors and seniors about their faith, dating habits, and personal decisions.

David Loftus

Class of 2012

A History of Dominance Threatened: The U.S. and Regional Security in the Persian Gulf

As a global superpower, the United States has attempted to project its power and secure vital interests throughout the world. Nowhere has this endeavor been more ardently pursued or had more lasting consequences than in the Persian Gulf region. Yet in their attempts to safeguard American regional interests, U.S. policy-makers have often ignored local and international sentiments, resulting in the expulsion of U.S. forces from strategic bases in Saudi Arabia in 2003 and to strained ties with regional allies. Where the United States was once dominate, it is now mired in two regional wars and faces multifaceted threats with dwindling support from allies. The historical role of the U.S. as security guarantor now seems threatened. Through interviews with Kuwaiti military officers and diplomats and a survey of the local Kuwaiti press, this research examines the changing security situation in the Persian Gulf and the future role of the United States.

Isiuwa Mabatah

Class of 2011

HIV/AIDS and Sexual Violence: Lessons from South Africa

South Africa has one of the highest reported rates of rape in the world, and an alarmingly high incidence of domestic violence and child abuse. A woman born in South Africa has a greater chance of being raped than learning how to read, and one in four girls face being raped before the age of 16. In addition, South Africa has more than 5 million people living with HIV, more than any other country in the world. As the HIV epidemic spreads in South Africa, sexual violence becomes a death sentence for thousands of women and children. For my project, I worked with the Treatment Action Campaign in Khayelitsha township in South Africa, the most HIV/AIDS affected township in the Western Cape. I learned why TAC has been such a successful NGO, and I witnessed the troubling realities of sexual violence against women and children and the indiscriminate scourge of HIV.

Alex Macheras

Class of 2013

School District Budget Building and Policy in a Massachusetts Town

Like many other municipal school systems, the Andover Public Schools have faced serious budgetary problems since the economic downturn of 2008. A suburban town in Massachusetts, Andover has long maintained a reputation for excellent public schools, unfortunately those schools are under increasing pressure to cut costs and streamline their budget. This project is a hypothetical experiment in budget building for municipal public schools. It presents a series of ideas and innovations which may serve to cut costs while maintaining small class sizes and preserving the quality of education in schools. Each of the proposals is accompanied by a cost savings analysis based on the Fiscal Year Class of 2011 Proposed Budget published by the Andover School Committee. In addition, the political and legal challenges of implementing each proposal are discussed.

Michael Manasia

Class of 2011

Effects of Caffeine and Nighttime Technology Use on Sleep Quality in College Students

Poor sleep quality has been consistently rated as a top impediment to academic performance in college students. The purpose of this study was to examine the effect of internet use and caffeine intake on sleep quality in college students. My survey of 440 Boston College undergraduates found that 75% of them were “poor” sleepers. After 9 pm on school nights, 73% connected online with friends, 59% engaged in text messaging, 54% watched television, 44% listened to iPods/MP3s, 38% talked on the phone, 28% watched DVDs/videos, and 15% played video games. On average, the students engaged in two of these activities while doing schoolwork. More hours spent across all the activities was correlated with greater daytime dysfunction and a lower GPA. Students who routinely drank caffeinated beverages after 4pm reported poorer overall sleep quality, shorter sleep duration, and greater daytime dysfunction. This study confirmed some of the causes and consequences of poor sleep quality among college students.

Joseph Manning

Class of 2014

*Our Survival is Not Negotiable: A Reflection on the United Nations Framework
Convention on Climate Change, 16th Conference of the Parties*

The United Nations has been meeting since 1990 to discuss Climate Change, and for the last sixteen years, one hundred ninety-eight countries have been negotiating an international treaty to address this complex and often sensitive issue. During the past two years, I have been a delegate to the Conference of the Parties (COP) representing the Sierra Club (the nation's largest and oldest environmental organization), and in December 2010, I attended the UN COP16 conference in Cancun, Mexico. This project reflects upon the viability of the COP process, the role of civil society within it, and the steps that need to be taken if we wish to stem the effects of climate change. My presentation examines the outcomes of sixteen years of negotiations and asks what these outcomes mean for the social, political, and economic well-being of future generations.

Benjamin Mayer and Sagar Wadgaonkar

Class of 2012

*Faces of Disaster: A Documentary Film on Emergency Relief Following the Haitian
Earthquake*

Our research explored sustainable relief efforts in the wake of the Haitian earthquake of 2010. We traveled to Haiti seven months after the earthquake to witness the devastation and the relief efforts firsthand. We observed traditional aid organizations that were focusing on providing basic necessities to the millions of Haitians left homeless and in poverty, and our particular focus was on organizations that we thought had a viable model for creating long-term development and growth in Haiti. In addition, we explored the plight of the education system in Haiti and got first-hand perspective from young people in Haiti about the challenges they face in receiving an adequate education that would allow them to escape the gripping poverty in Haiti.

Sofia Mohammed

Class of 2011

The Desegregation of Boston Public Schools: The Role of Black Folk

Boston is a culturally-rich city, renowned as the cradle of liberty and education. It is the home of great revolutions, influential leaders, top-tier universities, and of course ... the Red Sox. Yet Boston's history with Black education is not very well known. The city takes pride in having one of the first public education systems, yet it had a Jim Crow school system that was based on race and power. This study explores the desegregation of Boston Public Schools during the 1960s and 1970. It also reveals a significant part of Boston's history that is often unnoticed – the hard work and leadership that came from different areas of the Black community and greatly influenced the desegregation of Boston Public Schools.

Sophia Moradian

Class of 2011

Economic Coping Mechanisms of Iraqi Female Headed Households in Jordan

As a host country for displaced Iraqis since the 1991 Gulf War, Jordan has received waves of Iraqi forced migrants for the past twenty years, with the greatest number arriving after the 2003 Iraq war. Due to its own limited resources, Jordan has faced the difficult task of hosting these refugees. The Jordanian government still does not allow the majority of Iraqis to work in Jordan, so Iraqi households in Jordan lack a stable source of income, and Iraqi women have disproportionately suffered. In Jordan, Iraqi female household heads are among the poorest within the Iraqi population and are categorized as vulnerable peoples by the UN. This study looks at the informal ways in which Iraqi female household heads cope economically within Jordan through remittances, travel stipends, and volunteer positions. Continued international support, channeled through funding for UNHCR and NGOs in Jordan, which supports self-reliance strategies among Iraqi women, is needed.

Brandy Norton

Class of 2011

Ethnicity and First Year of College

This study examines the relation between ethnic identity and activity participation among students entering their second year of college and attending a higher education institution with a, undergraduate population of predominantly European descent — Boston College. This study examined whether: (1) minority students placed more importance on reaching ethnic identity achievement; (2) individuals that have reached ethnic identity achievement showed higher levels of self-awareness and intergroup contact; (3) individuals who achieved ethnic identity had greater resilience or more comfort with their ethnic identity than their unachieved counterparts; and (4) students with higher awareness, acceptance, and understanding of their culture had increased levels of in-group exploration and discovery. Results observed in this study indicate the influence a student's ethnic identity may have on his or her activity choice.

Taylor Norton

Class of 2013

Life on the Tightrope: American Politicians and Their Constituents

Being a politician in the United States is like being a circus performer on a tightrope: it's a balancing act. If politicians fail to represent the interests of their constituents, then someone else is elected and they "fall off the rope." Yet if they fail to recognize the interests of the nation as a whole, they risk its continued prosperity and again may be replaced in an election. With the lingering effects of the economic crisis, the high levels of unemployment, and the enduring wars in Afghanistan and Iraq, it is easy to see why many Americans believe that politicians have failed to keep their balance on the tightrope, and why the public's disapproval ratings of Congress are so high. To see what life is like on the tightrope, I interned with my Congressional representative, Congresswoman Rosa DeLauro, in order to analyze this balancing act in motion.

Emily O'Brien

Class of 2012

Poverty, Health, and Hope: Exploring Health Determinants in a Nicaraguan Clinic

As the second poorest country in the western hemisphere, Nicaragua struggles with violence, poverty, and inadequate health care. Despite these challenges, many Nicaraguans have faith in future change. This project explored the relationships between the life circumstances of Nicaraguans, their hope for the future, and their physical health. During six weeks of the summer, I volunteered with the Center for Development in Central America, a non-profit organization in Ciudad Sandino, Nicaragua. I volunteered at the Nueva Vida Clinic and observed patient-doctor interactions, and observed the varied determinants of health and the particular role of faith in this largely Christian country. The stories I was told and the conversations I engaged in revealed how ones circumstances and attitude toward them are often manifested in ones physical health, requiring in turn a holistic and culturally sensitive approach to health care.

Sarah Onori

Class of 2011

Tradizionale o Moderno: Italian Women and Their Cooking

Italian cuisine is distinct and varies within each Italian region, but it is intrinsic to the Italian culture, historically and symbolically. The modernization of food, in the form of processed foods and fast food chains, has affected cooking and reshaped traditional recipes. However, the Italian women I interviewed in Parma, Italy, have retained most traditional cooking practices while also adopting modern ones, and they keep alive the cultural traditions passed through food in Italian cuisine. Through this study, I explored the links that explain why some Parman women hold on to traditional cooking practices, including such factors marital status, employment status, parental status, and age.

Xinyu Pan
Class of 2012

Beijing Immersion: Political Influences on Art in Contemporary China

This project had two goals. The first goal was to study how Chinese politics since the Communist Revolution has influenced the development of Chinese modern art. The second was to take intensive Mandarin classes with Global Exchange Center (GEC) in Beijing, so I can become completely fluent socially and academically in the language. With the help of GEC, I met a group of international students who were just as passionate about the language and the culture as I am. The language, though difficult, is beautiful and poetic. My interaction with world-renowned artists was no less entrancing. My experience with sculptor Chen LaoDa and his wife was breathtaking. The stories he told, the experiences he shared, and the artworks he produced gave me new perspective on what Chinese modern artists are all about.

Matthew Richey
Class of 2012

The Greeks in Egypt: Cultural Contact in the Eastern Mediterranean

In 570 BCE, civil war erupted in Egypt, as Apries, the current pharaoh, and Amasis, one of his generals, battled for control of the Pharaonic state. The conflict is narrated by sources from Egypt, Babylon, and Greece, but the discrepancies in these accounts are huge and puzzling. Logistical and chronological details vary widely, making it difficult to determine the precise nature of Amasis' rebellion and its effects on Greek mercenaries and traders living in Egypt. My project, conducted at the British Museum's Department of Ancient Egypt and Sudan, involved an assessment of accounts written by the Greek historians Herodotus and Diodorus Siculus, and the comparison of these accounts with older sources from the ancient Near East. The examination reveals the implications of cultural bias in historiography, a consideration of which may be instructive for modern historians, who have often found it difficult to mitigate similar biases in their own writing.

Disha Robinson

Class of 2011

DANGER!: Educated Black Women

This study explores why it is so difficult for young professional black women to find a mate. Undergraduate students from the ages of 20-24 participated in a survey which included Rosenberg's Self Esteem Scale, plus questions regarding education and aspirations (to assess expectations) and pictures of models/actors (to assess the perceived appeal of black women). The participants were of Black, Asian, White-Hispanic and Black-Hispanic descent. It was predicted that women and men probably want different things in a mate, regardless of race, and that among non-black men, black models/actresses would get the lowest appeal ratings. It was also predicted that black women probably do not differ from White, Asian, Hispanic or Native American women in what they seek in a mate, and that the problem faced by professional black women are preconceived notions, including that they are "too strong" and "too disagreeable."

Amanda Rothschild

Class of 2011

Why the Genocide Convention Failed: Research into the politics of the Genocide Convention at the United Nations Archives in Geneva

In 1948, the UN adopted the Genocide Convention, which required contracting parties "to prevent and to punish" genocidal actions. Yet each time subsequent mass killings met the definition of the term "genocide" in the Genocide Convention, the international community failed to intervene. I became frustrated that international "lack of will," an ambiguous concept, was the common explanation for unresponsiveness. I knew that continued ambiguity would preclude the successful address of the roots of non-action. For my project, I reviewed the UN archives in Geneva, to identify the specific causes of the Genocide Convention's failure to trigger intervention, and to evaluate the degree to which the Responsibility to Protect—a new humanitarian intervention norm—mitigates or exacerbates these causes of non-action. I reviewed hundreds of documents, including classified files to which I had received access from the UN Office of the High Commissioner for Human Rights. Among the files were letters written by key figures in 1948, warning of the dangers of normative frameworks similar to the 2005 Responsibility to Protect.

Ian Roundtree

Class of 2012

Development of Relevant Synthetic Methods for Reagents

This Advanced Study Grant supported participation in the 18th International Conference on Organic Synthesis in Bergen, Norway. The exchange of ideas at the conference, along with my continued research in the Morcken Laboratory at Boston College, bear on a new and convenient method in organic synthesis. Recent results have furnished compounds that are otherwise not easy to prepare, and are valuable reagents in recently developed chemistry, including Catalytic Conjugate Addition of Allyl Groups to Styryl-Activated Enones, Asymmetric Ni-Catalyzed Conjugate Allylation of Activated Enones, Catalytic Enantioselective Allylation of Dienals through the Intermediacy of Unsaturated π -Allyl Complexes, and Pd-Catalyzed Enantioselective Allyl-Allyl Cross-Coupling. Facile access to substituted coupling reagents and efficient coupling conditions provides convenient routes to complicated compounds and more efficient natural product synthesis.

Olena Savytaska

Class of 2012

Order of Business: The Development of Commercial Courts in Russia and Ukraine

Following the collapse of the Soviet Union, Eastern European countries faced with the challenge of reshaping their political and economic systems as market democracies. Among the keys for this transition would be the establishment of the rule of law, buttressed by an independent judiciary system. Given the importance of property rights in a market-based society, I focused my research on commercial courts in Russia and Ukraine, assessing such factors as the accessibility of the courts to the general population; the independence and impartiality of the judges; and the variety of cases which come under the jurisdiction of these courts. I conducted interviews with attorneys, legal scholars, and employees of the court system in order to gain a better understanding of the practical improvements and shortcomings of the current legal codes of each country, as well as the day-to-day challenges faced by parties to legal disputes and the judges evaluating these disputes.

Michael Slovak

Class of 2012

Intensive Theological Immersion in Rome for Intellectual and Spiritual Development

For a Protestant theology major at a Catholic university, examining the similarities and differences between these two religions is especially appealing. Following a summer theology program in Rome that included conversations with Catholic and Protestant leaders concerning their ecumenical mission, I conducted extensive research in order to further investigate the relationship between the Protestant and Catholic churches. My research focused on the importance of early Church tradition for Martin Luther and his insistence on “sola scriptura.” This idea was examined specifically through an analysis of Luther’s acceptance of the Apostles’ Creed, despite weak scriptural support for the line, “He [Jesus] descended into Hell.” As a result of my research, I came to a greater understanding of what Luther actually meant by “sola scriptura,” an understanding that has deepened both my academic and spiritual grasp of the Christian faith.

Anne Spencer

Class of 2012

The Homeless Experience: The Role of Social Relationships in Pulling Women Out of Poverty

During my three months working in a Boston area homeless shelter, I conducted interviews with social workers, counselors, and advocates in order to examine the effect of homelessness on afflicted women’s social networks. I sought to understand both the necessity of positive social interaction in combating homelessness and those factors that actively prevent a woman from escaping the devastating bonds of poverty. I found that social isolation is a significant result of homelessness, and one that in turn also makes it difficult for women in poverty to escape from their homeless situation. It is vital for the wider community to reframe its conception of homelessness in terms of serious trauma, for otherwise society will fail to develop effective systems to address and actively combat the plight of homeless women.

Catalina Tang

Class of 2011

Longing To Belong: Exploring Bicultural Ethnic Identity Construction in Chinese Young Adults in Colombia

If you grow up with two different cultures and languages, to which society and culture do you ultimately belong? Such is the question of identity facing many bicultural Chinese young adults living in Colombia. According to research studies, having a bicultural ethnic identity can benefit individuals by providing competence in both cultures, yet it can also cause conflict and psychological stress. My research study explored how Chinese young adults living in Colombia manage these dual identities and cultures in their daily lives. The study conducted online focus groups and follow-up semi-structured online interviews with eight young adults born to Chinese parents living in Colombia. Findings reveal that level of participation in cultural activities, social interactions with members of a particular ethnic group, and perceptions and acceptance from the mainstream host community strengthen identification of bicultural individuals with ethnic groups. Participants' bicultural identities are dynamic and are constantly negotiated within social contexts of both ethnic groups.

Thomas Tarangioli

Class of 2011

Music in Regensburg: Practice, Interpretation, and Performance

A musical performance can be viewed as a synthesis of complex and contrasting elements and ideas. There are many schools of thought about how musicians should practice, interpret, and perform pieces of classical music. This past summer, I studied piano performance at the International Music Academy in Regensburg, Germany. My experiences conversing, studying, and performing with a wide array of serious musicians dramatically influenced my perspective on musical performance with respect to both a performance itself and the time that is spent preparing it. For my presentation, I will address the various perspectives, practice techniques, and interpretive methods that pianists use in preparing and performing a piece. I will discuss different philosophies of performance and practice, but the presentation will focus primarily on the various techniques that performers use to overcome obstacles that hinder their ability to perform at their peak.

Siobhan Tellez

Class of 2013

*A Study of Global Health: Clinical Work with the School of Medicine at Panama
University*

When I prepared to spend six weeks in Chorerra, Panama, last summer, I had a vision of watching as medical students from Tufts School of Medicine—my fellow trip participants—honed their myriad clinical skills. Quickly I discovered the faculty at hospitals and community health clinics alike wanted me to take an active role in the health care process and respected my status as a nursing student; I interviewed clients and performed basic procedures. I learned medical vocabulary in both English and Spanish and developed therapeutic communication techniques in Spanish as well. I received a rich cultural experience that not only fulfilled every expectation, but offered valuable opportunities for growth and inspiration. This experience has cemented my desire to become a nurse practitioner and encouraged me to pursue international health politics later in life.

Jacob Throwe

Class of 2011

In Pursuit of “Di-dao” Beijing

My research entailed the pursuit of an “authentic” Beijing experience. Although Westernization has vastly changed China’s capital city, a substantial number of its residents remain unaffected. In order to experience their lifestyle, I focused my research on the neighborhood I came to call home, located about three miles from the city center on Yang Fang Hutong. Within walking distance of the courtyard community where I lived, there was an elementary school, a good number of cheap restaurants, and not much else. Amenities were limited, especially compared to a similar living standard in the United States. Through memorable conversations and many complicated situations, I was able to experience an “authentic” Beijing seldom experienced by the average tourist.

Daniel Tonkovich

Class of 2013

From Fur to Fortune 500: Examining the History of Economic Development in the Pacific Northwest

The Pacific Northwest United States and Canada boasts a rich historical past and has a promising future as a result of a well-crafted economic development policy. This research project examines the forces that have shaped economic development in the Northwest. Through independent research guided by professionals from the Columbia River Economic Development Council, Center for Columbia River History, Washington State University-Vancouver, and Portland State University, the project examines how key historical companies and organizations (such as the Hudson's Bay Trading Company), as well as the region's natural resources, government policies, and international trends influenced the rise of population and business centers. This research illustrates how development forces such as energy, tourism, demographics, healthcare, trade, natural resource use, and community partnerships that attract investment can create an attractive environment for investment and business development.

Brian Tracz

Class of 2012

Perceptual Transformations: Rethinking Sensation in Perception and Knowledge

Knowledge, perception, and our senses have a complex relationship. Protagorus, as caricatured by Plato, claims that "man is the measure of all things," a statement that implies that "knowledge is perception." Plato challenges this notion by giving an account of perception "as such" for both humans and animals. The fundamental contention in Plato's Theaetetus is that "perception occurs with the soul by means of the senses." In contrast, Martin Heidegger proposes a phenomenological account in which perception is a "striving" relationship between a person and phenomena. Although Heidegger claims he is providing a reading of Plato, in fact the two philosophers ultimately have incompatible formulations of perception. Xavier Zubiri's understanding of perception contrasts with both Plato and Heidegger. Perception can be thought of as the change of a perceived object from reality-thing to meaning-thing, in Zubiri's terms. This has interesting implications in the biology and philosophy of perception.

Christy Tran

Class of 2012

Effects of Mother-Infant Interaction on Infant Brain Development

Long-standing research links psychological and behavioral aspects of infant development to the parent-infant relationship. Within the past fifteen years, research has been extended beyond the psychological and behavioral aspects to the neuro-anatomical aspects of infant brain development. This field of research is clinically significant because psychological and affective disorders such as depression can disrupt the mother's ability to communicate with her baby, thereby negatively affecting infant behavior and physiology. Specifically, studies have shown that infants of depressed mothers display an asymmetrical right frontal EEG activation which is related to negative affect, hostility, tantrums, and aggression. This asymmetrical profile is consistently seen in depressed adults. This study reviews the recent research, which poses new questions about whether screening and early interventions for maternal depression, such as psychotherapy and interaction coaching, can improve the parent-infant relationship and foster "healthy" brain development.

Tedd Wimperis

Class of 2011

Ars Scribendi, Ars Edendi: Medieval Manuscripts and Medieval Textual Criticism

With a prior Advanced Study Grant, I researched and translated a Medieval Latin poetic narrative entitled *De expugnata Accone*. A subsequent Grant has enabled me to study more poems of the same era and formulate a comprehensive thesis on Latin crusading poetry of the late 12th Century. The texts all deal with the events surrounding the Third Crusade (1187-92 AD), and exhibit a variety of genres, meters, and poetic influences ranging from Classical epic to medieval theology and exegesis. The poems include *De bello contra Salahadinum gesto* (1,430 verses), *De Ierosolima a Saladino capta* (404 verses), *Planctus de amissione Terrae Sanctae* (100 verses), *Conductus de itinere Ierosolimorum* (52 verses), *Versus de Crucigeris* (32 verses), and the fragmentary *Antiocheis* (21 verses). The finished edition encompassing these works will include full translations from the Latin (many of the poems translated for the first time), a critical apparatus of variations among the source manuscripts, and historical commentary.

Corey Yarochowicz

Class of 2013

Thirsting for Memory: Plato and Greek Spirituality

During the early generations of Classical Greece, the Hellenic initiates of the Orphic, Eleusinian, Pythagorean, and Oriental rites were very much pregnant with the ideas that would form the foundation of the Western Heritage. It is, for that reason, a great misfortune that few original fragments have survived from these influential although much-forgotten mysteries. Fortunately, the dialogues of Plato seem to be well-rooted in these earlier traditions and therefore help in the task of reconstructing them. The object of this research is to better understand Plato's relationship with these earlier Greek traditions, while determining their influence on the development of Plato's monotheistic devotion to The One. Simply put, this research hopes to interpret Plato not as the West's first philosopher, but instead as one of the West's last surviving links to Greece's early spiritual traditions.

Melissa Zaniewski

Class of 2012

Boston Nurses and the Halifax Disaster of 1917

My research sought to identify nurses from the Boston area who contributed to the relief efforts during the Halifax disaster of 1917. Nurses were the largest group of relief workers in Halifax, and this research attempts to fill a void of knowledge about their contributions. From archival materials at several Boston sites, I have identified 163 nurses from the Boston area who participated in the relief efforts, including data about the nurses' relief unit, place of employment, nursing school, as well as nationality. This data gives a voice to this large group of relief workers, something that has never been done before. By collecting and organizing this data, a deeper understanding of this disaster can be achieved and used in order to improve disaster relief in the future.