

Boston College
UNDERGRADUATE
RESEARCH
SYMPOSIUM



February 1, 2013

Fulton Hall

BOSTON COLLEGE

UNDERGRADUATE RESEARCH SYMPOSIUM

Schedule of Events: February 1, 2013

12:30 PM Opening Session

Fulton Honors Library

Welcome Remarks by Prof. Donald Hafner, Vice Provost for Undergraduate Academic Affairs

Keynote Address by Prof. Sarah Ross, History Department

1:00—2:00PM Session I

POSTER PRESENTATIONS

Fulton Commons

- Douglas Brown *An International Discourse on Small Molecules and Proteomics*
- Karolina Cyburt *Coronal Mass Ejections and Commercial Airlines: Forecasting Methods and Economic Impact of Space Weather*
- Ann Harrington *Current Trends in Nursing Theory-Based Research: A Selective Global Survey*
- Patrick Hyland *Applying qPCR to Measure Gene Expression Changes in Neurons*

LITERARY VOICES

Fulton Honors Library

- Harrison Kent *The Lost Poems of Charles Sprague: Uncovering the Life and Works of the Banker-Poet*
- Annie J. Park *(Re)Discovering Music in Cremona*
- Peter Tasca *"The Widening Gyre:" Aestheticism and the Occult in the Poetry of William Butler Yeats*
- Katie Wullert *Bambini e Libri: A Study of Gender Depictions in Italian Children's Literature*

ISSUES IN PUBLIC HEALTH

Fulton 110

- Danielle Gautreaux, Kathleen Marion, Marina Iturralde,
& Amanda Farrell *Improving Nursing Students' Knowledge and Skills in Caring for Patients Experiencing IPV*
- Christopher McLaughlin *Infant Mortality in Rural Haiti*
- Phoebe Matthews *Rocky Mountain Outdoor Educator: Backpacking with Wilderness First Responder*

1:00—2:00PM Session I (continued)

ISSUES IN EDUCATION

Fulton 240

- Katherine Clarke *Project Kindle*
- Maggie Farrell *Skills Acquisition in Project Management and Emerging Technology Services in Museum Education at the Getty Villa*
- Robert Rodine & Douglas Greig *First Dollar: An Experiment in Social Entrepreneurship*
- Conor Sullivan *An Alternate Approach to Bridging the Achievement Gap: Full Service Education*

HISTORY ANCIENT AND MODERN

Fulton 423

- Patrick Angiolillo *A City of Biblical Proportions: Participating in an Archaeological Excavation*
- Claire Marinello *The Other Side of the Midway: Human Exhibits at World's Fairs*
- Sarah Messer *A Different Perspective: The French Experience of the World Wars*
- Grace West *Race and Religion in the Tar Heel State: The Afro-Moravian Experience in North Carolina*

PHILOSOPHY AND RELIGION

Fulton 425

- Arnold Guevara *Turkey's Justice and Development Party and It's Adherence to Secularism*
- Sam Kent *Rickert's Hiatus Irrationalis: Understanding Reality*
- Mary Popeo *Japan's Christian City: Exploring Nagasaki Through Public History*
- Corey Streitwieser *Redefining Two Moving Targets: Plato on Math and Philosophy*

2:00—3:00PM Session II

POSTER PRESENTATIONS

Fulton Commons

- Melanie Chang *Attitudes Towards and Knowledge about Working with Older Adults: A Comparison of Freshmen and Senior Nursing Student*
- Katie Farrell *Drinking Motivations in the College Population*
- Annelise Hagar *A Dollar Well Spent: Consumer Choices of Low- to Middle-Income Single Mothers*
- Annemarie O'Toole & Kate O'Malley *The Effect of 20-minute Stress Reduction on Nurses' Job Satisfaction*

THE FINE ARTS

Fulton Honors Library

- James Ball *Composition Project: Piano Quartet*
- Annelise Corriveau *Escaping the Shadow of Chardin: A Re-examination of the 18th-Century French Still Life Painters Chardin and Anne Vallayer-Coster*
- Jeanny Fuentes *Don Quijote and the Art of Dying*
- Emily Mervosh *The Effect of a Cross-Community Orchestra on Relations Between Catholic and Protestant Youth in Northern Ireland*

2:00—3:00PM Session II (continued)

POLITICAL PERSPECTIVES

Fulton 110

- Matthew DeMaio *One Peace, Differing Paths*
- Sean Keeley *An Occupied Cinema: Political Intimations in Three Popular Films of Vichy France*
- Mabel Lee *A Divided People: The Ethical, Economic, and International Aspects of Korean Reunification*
- Colin Notis-McConarty *The Politics of the Battle of the Crater, 1864*

HISTORICAL CONFLICTS

Fulton 240

- Ashley Dowd *Memorializing Argentine State Terrorism 1976-1983: Perspectives on Preserving Memory and History*
- Christopher Fitzpatrick *Communities in Conflict: The Politics of Urban Housing in Northern Ireland*
- Benjamin Miyamoto *An Introduction to the Israeli-Palestinian Conflict: Interviews with Peacemaking and Human Rights Advocacy Organizations*
- Lorenda Ziazikova *Civic Education and Democratic Development in Russia*

GLOBAL HEALTH ISSUES

Fulton 423

- Karel-Bart Celie *Personhood in Bioethics*
- Alana Fruauff *Medical Crossroads at the Himalayas*
- Patrick Regan *Lessons from Down Under: Australian Health Policy and its American Implications*
- Nicholas Spetko *Tarahumara Medical Challenges*

DISCOVERIES

Fulton 425

- Victoria Luu *Parameterizing Ocean Acidification*
- Chelsea Mickel *Religious Amphibianism in Bulgaria: A Study of Syncretism of Sufi Bektashi and Pomak Islam in Orthodox Christianity*
- Rui Soares *Increased Mitochondrial Damage Associated Molecular Patterns (DAMPs) in the Peritoneum of a Murine Sample Induced with Sepsis*
- Dewan Woods *Extraordinary Features and Capabilities of Metamaterials*

3:00—4:00PM Session III

POSTER PRESENTATIONS

Fulton Commons

- Basant Badr *An Emerging Market in (Respond)sible E-waste Recy(cling)*
- Kelly Saintelus *Minority Student Attitudes Towards Race-Conscious Awards*
- Yvonne Shih *Nurse-to-Patient Ratio: Balancing the Demand and Supply of Nurses*
- Megan Cannavina, & Molly McMullan *Three Magic Wishes: Insight into the Self-Perceptions and Goals of Young Adults with Developmental Disabilities*

DISCOVERY IN ANOTHER LANGUAGE**Fulton Honors Library**

- Shari Campbell *A Socio-cultural Approach: Effects of Integrative Motivation on Second Language Acquisition During Study Abroad*
- Maariyah Lateef *My Summer in Turkish America*
- Victoria Mariconti *Berklee Umbria Jazz Clinics: Studies in Two Languages in Perugia, Italy*
- Sarah Mathey *Portuguese Language Acquisition to Support Study in Latin America*
- Wei Kuang Pan *Erasmus Academy: German Language Study for Philosophy*

SUSTAINABILITY AND SOCIAL CHANGE**Fulton 110**

- Narintohn Luangrath *An Coimisiún Um Chearta An Duine: Roma Immigrants, Irish Travellers, and the Services of the Irish Human Rights Commission*
- Terese Rutkowski *Natural Incentives: The Socio-Economic Impact of the EU's Natura 2000 in Poland*
- Rakeen Tanvir *Rainwater Harvesting in Nepal: A Microcosm of the Global Water Crisis*
- Alison Wawrzynek *Modern Globalism: Economic Policy and Social Change in Germany*

ECONOMICS & POLITICS**Fulton 240**

- Omeed Alerasool *Not a Euro Crisis*
- Eva Alonso *From Capitalism to Socialism: The Impact of Hugo Chávez's Policies in the Venezuelan Stock Market and Brokerage Activities*
- Gawoon Chung *Gastro-diplomacy and South Korea's Nation-Branding Efforts*
- Andrew Gier *The Hessian Mercenary State: The Rise of Hessian Mercenary Forces of the 17th and 18th Centuries*

SCIENCE AND TECHNOLOGY**Fulton 423**

- Frank DiRenno *Skeletons in the Church of San Pietro a Pozzeveri: Field School in Medieval Bioarchaeology*
- Joseph Manning *The Politics of Renewable Energy Development in Rural Nova Scotia*
- Alex Moscovitz *The Introduction of Carbon-Negative Gasification Stoves to the Dominican Republic*
- Diana Tran *Social Media and the 2011 Tōhoku Earthquake and Tsunami*

4:00—4:30PM**Closing**

DISCUSSION & REFRESHMENTS**Fulton Honors Library**

Omeed Alerasool

Class of 2015

Not a Euro Crisis

Since the collapse of Lehman Brothers in 2008, the world's advanced economies have been shaken by uncertainty and crisis. The aim of this project is to compare the economic crisis in the United States and the crisis in the European Union. Although the crisis in the EU was sparked by the global financial crisis that came out of US financial failures, the European troubles have taken a form of their own. Each of the major EU crisis nations has had its own unique problems, making a common solution all the more challenging. Both the Preventive Arm and the Corrective Arm of the Economic and Monetary Union (EMU) have proven to be ineffective, leaving the European Central Bank (ECB) to tackle the task. This is not a Euro crisis; this is a European Union crisis that is challenging the institutions of the EU and bringing the Union itself into question.

Eva Alonso

Class of 2015

From Capitalism to Socialism: The Impact of Hugo Chávez's Policies in the Venezuelan Stock Market and Brokerage Activities

From 1999 to the present day, Venezuela has experienced a vast number of policy changes under Hugo Chávez as part of a revolutionary transition from capitalism to socialism. During his three presidential periods, President Chávez has worked on the dissolution of *la burguesia*, as he often refers to the higher class in Venezuela. With this approach, he has undertaken certain actions and decisions in order to reduce the working and business opportunities of the higher class. One of these actions was the enactment of a new Law of Capital Markets, in substitution to the one of 1998, preempting brokerage firms from doing their main activity in Venezuela: the negotiation of public debt titles. Additionally, President Chávez nationalized Venezuela's most important and largest firms. These decisions have had extensive effects in Venezuela's economy, especially in its stock market. The present study shows the impact of this "revolutionary transition" in Venezuela's financial sector with information and data gathered from CEOs of several Venezuelan brokerage firms, the Caracas Stock Exchange, and the Ibero-American Federation of Stock Exchanges.

Patrick Angiolillo

Class of 2014

A City of Biblical Proportions: Participating in an Archaeological Excavation

On Israel's southern shore, only yards from the Mediterranean, lies a city whose history spans millennia, and whose importance garners the attention of historians and archaeologists, as well as theologians and biblical researchers: Tel Ashkelon. Tel Ashkelon has been excavated since the early nineteenth century, and most recently, the Leon Levy Expedition began excavating the site in 1985. Participation in the excavation at Ashkelon revealed the basic archaeological methods employed in modern archaeology (e.g., stratigraphy and microarchaeology). Moreover, participation exposed the many problems that face archaeologists as they discover new and sometimes difficult facts about the history of Tel Ashkelon. This study engaged the problems of dropping a probe in Grid 47 at Tel Ashkelon: speculating as to the location of covered structures, treating contamination from previous archaeological digs, and dating materials and artifacts.

James Ball

Class of 2013

Composition Project: Piano Quartet

As a music composition student, I have written for different ensembles, mostly involving piano and strings. However, I had never composed a piece that made use of these two influential instrument groups. My Advanced Study Grant funded the composition, under the supervision of Boston-based composer Scott Wheeler, of a Piano Quartet, a chamber piece for Violin, Viola, Cello, and Piano. It is performed today by Annie Park '13 (Violin), Serena Lofftus '13 (Viola), Tina Jung '14 (Cello), and Sandra Hebert (Piano).

Basant Badir

Class of 2013

An Emerging Market in (Respond)sible E-waste Recy(cling)

The 21st century marked the proliferation of smartphones, tablets, and social networking. This technological boom resulted in the mass production of electronic gadgets that keep people on their toes, constantly looking for the next innovative device. As a result, discarded electronics have become one of the fastest growing forms of waste. The improper disposal of electronic waste (e-waste) poses harmful health and environmental concerns. For example, when e-waste is incinerated, it emits toxic chemicals into our environment. This project explores product stewardship over electronic waste — that is, the extent to which people take responsibility to reduce the harmful environmental consequences over the lifespan of an electronic gadget. I will analyze how original equipment manufacturers, consumers, and disposal facilities play a role in properly disposing of e-waste. Ultimately, this study has the potential to highlight the necessary actions that need to be aligned in order for us to begin dealing with the e-waste problem.

Douglas Brown

Class of 2013

Poster

An International Discourse on Small Molecules and Proteomics

The “13th Tetrahedron Symposium: Challenges in Bioorganic & Medicinal Chemistry” took place in Amsterdam from June 26-29, 2012. The symposium was a chance for scientists to come together to discuss the latest advances in bioorganic chemistry. Prominent leaders in the field, such as Dr. Ben Davis from the University of Oxford, Dr. Tom Muir from Rockefeller University, and Dr. Gregory Verdine from Harvard University, examined topics ranging from sugar modifications on proteins to undruggable targets and the potential of synthetic biologics. The symposium provided an opportunity both to learn and to teach as a scientist; during the poster presentations, I presented my research involving the synthesis of cysteine-reactive triazine probes. These probes were demonstrated to be modular in nature with their electrophiles affecting reactivity and their binding groups determining the subset of the proteome with which they react. Additionally, I presented preliminary bioactivity data relating their effects on *HeLa* cells.

Shari Campbell

Class of 2013

A Socio-cultural Approach: Effects of Integrative Motivation on Second Language Acquisition During Study Abroad

Among the literature concerning second language acquisition (SLA) during study abroad, researchers tend to overlook the effects of motivation and socio-cultural context on the oral second language development in students. The present study investigates this relationship by considering various social and cultural factors that are unique to the study abroad setting, and how such factors affect both motivation to learn a second language, and actual oral second language acquisition. This study tracks the oral language proficiency of three study abroad students in Spain. It uses case-study methodology to isolate socio-cultural variables unique to each individual's study abroad experience, and examine their effects on integrative motivation and second language acquisition.

Karel-Bart Celie

Class of 2014

Personhood in Bioethics

Bioethics seeks to preserve basic moral values in light of the tremendous biomedical and biotechnological progress of the past 70 years. One foundational concept in bioethics is that of *personhood*. Despite its apparently obvious nature, small differences in the interpretation of personhood profoundly affect medical ethics in practice, which is why one of the earliest debates that accompanied the “birth” of modern bioethics centered on the personhood issue. The three main voices in this debate were Joseph Fletcher, Paul Ramsey, and Richard McCormick—all moral theologians who offered different views on what constituted personhood. Ramsey and McCormick, however, offered distinctly non-dualistic views on personhood in contrast to the dualism present in Fletcher's thinking. Using my Advanced Study Grant, I was able to study the perspectives offered by these thinkers in depth by reading their most instrumental works on personhood. In addition, I was able to augment my research by attending a summer course on bioethics through the Department of Systematic Theology at the University of Helsinki, Finland. Thus I was given the opportunity to thoroughly study the personhood issue in congruence with a more international perspective on bioethics.

Melanie Chang

Class of 2013

Attitudes Towards and Knowledge about Working with Older Adults: A Comparison of Freshmen and Senior Students Enrolled in a Baccalaureate Nursing Program

The population of older adults, defined as over the age of 65, is growing rapidly in proportion to the rest of the population. Literature findings indicate that, in order to provide adequate nursing care to this population, students must possess pertinent specialty knowledge and have positive attitudes towards working with the older adult cohort. Therefore, the purpose of this study was to assess the impact of the Boston College undergraduate nursing curriculum on freshmen and senior students' attitudes and knowledge about working with an older adult population. The results of this study indicate that senior nursing students at Boston College have significantly more positive attitudes and knowledge about working with an older adult population than freshmen students. An increased understanding by educators into both the impact of undergraduate nursing curricula on nursing students' attitudes and specialty knowledge when working with older adults is a critical step toward fostering student growth in these areas, and ultimately, to promote optimal patient care.

Gawoon Chung

Class of 2016

Gastrodiplomacy and South Korea's Nation Branding Efforts

Rapid industrialization, technological advances, and other endeavors have helped transform the Republic of Korea into one of the largest and fastest-growing economies in the world. In recent years, the Korean government has focused on obtaining a larger global presence for the nation, with the belief that South Korea deserves a more positive and accurate international reputation to match its esteemed economic status. One of the methods by which the government hopes to achieve this goal is to promote Korean food (*hansik*), an important feature of Korea's rich culture. Exploring the online databases of various establishments, such as the Korea Tourism Organization and the Korean Food Foundation, enabled me to gauge the success of recent efforts to popularize *hansik*. To perform this research, I traveled to Seoul to interview six knowledgeable individuals. These interviews, along with my own research, allowed me to learn more about Korea's vibrant culinary culture and to gain a better understanding of *hansik*'s role in affecting foreign perceptions about Korea. My project also forced me to consider the broader implications of Korea's cultural identity on efforts to develop a "national brand" and a better international image.

Katherine Clarke

Class of 2015

Project Kindle

In a world saturated with digital technology ranging from iPods to e-readers, the era of the printed book appears to be coming to a close, much to the chagrin of many traditional readers. “Project Kindle” explores the viability of digital reading technology in a classroom setting. As opposed to viewing the recent rise in popularity of e-readers such as Kindles and Nooks as a detriment to the tradition of printed books, I chose to explore whether this new medium could entice new readers. Throughout the summer, I worked with a group of children on a weekly basis in order to gauge how the use of a digital reader affected not only their comprehension of the works we read, but also whether the e-readers excited them about reading. I sought to discover whether today’s “digital generation” could love the world of literature. By the conclusion of the project, my research yielded optimistic results.

Annelise Corriveau

Class of 2015

Escaping the Shadow of Chardin: A Re-examination of the 18th-Century French Still Life Painters Chardin and Anne Vallayer-Coster

This project is a combination of art historical studies, French studies, and women’s studies. It is an examination of two significant eighteenth-century French still life painters: Chardin, and his lesser-known female successor Anne Vallayer-Coster. The project focused on three paintings from each artist with similar subject matter in order to compare and contrast their styles, ultimately in hopes of resurrecting the importance of Anne Vallayer-Coster’s work. I conducted the primary research in Paris over the course of three weeks. Four of the paintings I studied are housed in the Louvre, while one is in Douai, France, and the remaining piece was on loan to the National Museum of Women in the Arts in Washington, D.C. The project was also a study of French language and culture, experienced through a home-stay with a native Parisian family throughout the duration of the research conducted in France.

Karolina Cyburt

Class of 2014

Coronal Mass Ejections and Commercial Airlines: Geoeffective factors for coronal mass ejections, forecasting methods and economic impact of space weather

Space weather studies interactions between the Sun and the Earth. It is a relatively new field of study that finds applications in many industries, from power grids to airplanes. Among the many solar phenomena that space weather studies are coronal mass ejections (CMEs), which are bursts of large gas bubbles that are held up with magnetic field lines located in the Sun's corona. This study focuses on the impact of CMEs, which are believed to be the leading causes of geomagnetic storms, on the commercial airlines industry in the United States. There are many reasons, both for safety and for financial purposes, for airlines to be concerned about space weather. Disturbances in Earth's magnetic field can lead to noise or outages in communication and navigation devices on aircrafts, especially the ones that fly polar routes. Flight diversions caused by geomagnetic disturbances can be very expensive. Costs include additional fuel, extra airframe usage, and possible compensation to passengers for missing their connecting flights. This study focuses on examination of major predictors of CME geoeffectiveness and development of a model that would help airlines better forecast geomagnetic storms. The study concludes with an analysis of costs and benefits associated with flight re-routings caused by CMEs.

Matthew DeMaio

Class of 2013

One Peace, Differing Paths

The Two State Solution has all but monopolized the discourse surrounding the Palestinian-Israeli conflict, both within the communities and in the international arena. There has been near unanimity amongst the producers of political discourse in Israel, the Palestinian territories, the United Nations, the United States and the European Union for almost two decades that the best way to finally end this ongoing conflict is to establish a Palestinian state. Yet this has still not come to pass. The reasons for this continuous failure go beyond disagreements over borders and control of the Holy City of Jerusalem. This failure to reach consensus is as much about the path to peace as the shape of the peace itself. With a critical reading of Palestinian and Israeli political discourse produced over the last eighteen months, the vision of each nation's path to peace becomes clear.

Frank A. DiRenno

Class of 2015

Skeletons in the Church of San Pietro a Pozzeveri: Field School in Medieval Bioarchaeology

This project involved participation in the Field School in Medieval Archaeology and Bioarchaeology at Badia Pozzeveri, Italy. Bioarchaeology is an emerging field of research, with projects being conducted across the globe, studying ancient and historic societies. The field is helping historians learn more about demographics and mobility of societies. This particular field school focused on the medieval and eighteenth-century burials located at the church of San Pietro a Pozzeveri in the town of Altopascio. The church was built in the eleventh century along the Via Francigena pilgrimage route. The field school emphasized proper techniques for the excavation of human remains from these burials. Archaeological field methods, specifically Geographic Information Systems, were also used to better understand the burial contexts. Work for this project was conducted on the grounds west of the church, in front of the current church entrance. Evidence of the location where the church bells were cast, a medieval wall that was part of the original church structure, and a lithic coffin containing a minimum of 15 individuals were among the most notable discoveries at this site.

Ashley Dowd

Class of 2014

*Memorializing Argentine State Terrorism 1976-1983:
Perspectives on Preserving Memory and History*

Despite the important legal findings recorded in the court decisions holding the Argentine military responsible for gross violations of human rights, subsequent presidential amnesties weakened the discussion and contributed to impunity surrounding the 1976-1983 acts of Argentine state terrorism. More recent efforts to prevent a repetition of the past include a series of monuments, memory spaces, and murals. During the military dictatorship, the government was responsible for gross violations of human rights that took the lives of over 20,000 people, many of whom were tortured and murdered. *Los Desaparecidos*, or the disappeared, was the name given to the numerous individuals, notably social workers, professors, students, and political activists who were secretly kidnapped, detained, tortured, and often killed during the military dictatorship of 1976-1983. The effort to honor and preserve the memory of the individuals and families affected by those events has advanced the post-conflict commitment of “*Nunca Mas*”-- never again.

Katherine E. Farrell

Class of 2013

Drinking Motivations in the College Population

Alcohol use on college campuses has become a national epidemic. Approximately 4 out of 5 college students report alcohol consumption, and half of all college-aged drinkers report binge drinking. The consequences of binge drinking are monumental, as each year over 1,500 students die of alcohol related injuries and another 500,000 suffer non-fatal injuries. Drinking motivations have been studied in groups of binge drinking college students, but few have investigated motivations associated with light-to-moderate alcohol use. I conducted a cross-sectional, web-based investigation of drinking behaviors and associated motivational correlates. The sample consisted of 357 undergraduate students who reported drinking alcohol within the last thirty days. For the purposes of this research, binge drinking is defined as 4 drinks in a 2-hour period for women and 5 drinks for men. I investigated a variety of alcohol-related motivational constructs. Students reported that their motivations to drink included, but were not limited to, “being more social,” “making events more fun,” and “liking the feeling.” The participants did not report drinking to “forget their problems,” “cheer up,” or “fit in with their peers.” Nurses need to be aware of these motivations in order to successfully implement alcohol-related interventions in this population.

Maggie Farrell

Class of 2015

Skills Acquisition in Project Management and Emerging Technology Services in Museum Education with the Education Department at the Getty Villa

The idea of using technology in education has developed since the introduction of the computer into school environments. The use of technology in museum education, however, especially in social media, is a new and unknown field. This past summer, I worked with the Education Department at the Getty Villa in their attempts to develop a program that uses social media as a way to educate the public. While social media, especially Twitter and Facebook, is widely used for marketing purposes in museums, not many have worked on using social media in an educational context. While at the Getty, I gathered information by working with the public through hands-on family activities, in order to create a Pinterest page that creates a visual educational comparison between the museum’s collection and children’s artwork. I hope that other institutions will see this project as an introduction to using developing technologies in an educational context.

Christopher M. Fitzpatrick

Class of 2013

Communities in Conflict: The Politics of Urban Housing in Northern Ireland

This research analyzes urban housing policy in Northern Ireland from 1967 to 1975 and examines whether claims of prejudicial treatment against the Catholic nationalist community are justified. At the time, Northern Irish cities suffered a shortage of housing units and widespread substandard living conditions. Politics in Northern Ireland were further complicated by the question of devolved government in Ulster, as the United Kingdom attempted to maintain an appropriate level of authority over the region and keep tensions between unionists and nationalists from exploding into violence. As a result, this paper scrutinizes housing policy on three levels of agency – local councils, devolved Northern Irish political organizations, and the central UK government. Ultimately, this work argues that efforts to centralize political authority diminished the extent of discrimination in housing policy, but that substantial prejudicial behavior against Catholics was undeniably present in the sociopolitical structure of Northern Ireland.

Alana Fruauff

Class of 2014

Medical Crossroads at the Himalayas

Healthcare has become one of the most pressing issues for nations throughout the world today because it is such an important aspect of maintaining people's rights to life and freedom. Perhaps the most urgent concern is the healthcare of developing countries because these nations suffer from immensely inadequate healthcare facilities. In the absence of widespread modern medicine, many developing countries have developed traditional medical practices that reflect the cultural heritage of the nation. This is particularly the case in Nepal, a small landlocked country in Southeast Asia that has a rich cultural and spiritual history that has transcended into the country's healthcare practices. The country's efforts to incorporate and develop modern medicine have been met by a myriad of obstacles that have halted significant progress and achievement. Insufficient funds, inadequate resources, and poor infrastructure plague Nepal, which severely debilitates the nation's ability to provide healthcare to its citizens. Only through extensive foreign aid, international assistance, and significant political reformation will Nepal be able to achieve substantial success in the medical field.

Jeanny Fuentes

Class of 2013

Don Quijote and the Art of Dying

This research analysis aims to give a thorough discussion of baroque death as performance in Cervantes's *Don Quijote* (1605; 1615), which readers today are hard pressed to explain. This research draws upon a genre of literary works, called *artes del bien morir* (the art of dying well), which is prescriptive writing about how to die well in early modern Catholic Spain. The goal is to show how *el ars moriendi* will inform the reader of how Cervantes constructed the death of Don Quijote applying the same principles of dying. Death is known to depict the horrors of the human condition, it reveals the individual in the crudest moments, and strips them from their humanity. It is that fear of dying that distorts the beautification of a *good* death. Death should not be forgotten because it is imperative to prepare for it in order to prevent humanity's suffering. As taught in the art of dying, death is not the end but merely the beginning to a better life—a life with God. Upon comparison, it becomes clear that if one reads the ending of Cervantes's novel in light of baroque ideology about death, the knight's perfect demise is the way the author assures his character's salvation.

Danielle Gautereaux

Class of 2014

Marina Iturralde

Class of 2015

Kathleen Marion

Class of 2013

Amanda Farrell

Class of 2014

Brandee Piazik

Class of 2014

Improving Nursing Students' Knowledge and Skills in Caring for Patients Experiencing IPV

Intimate partner violence (IPV) is a significant public health issue associated with numerous negative health outcomes. The nurse-patient relationship and ongoing interactions during a health care encounter provide opportunities for nurses to ask questions about personal safety and experiences with violence. Hence, education of nurses on the topic of IPV should begin in nursing school. The undergraduate and graduate curriculum may include content on family or intimate partner violence, however, student nurses have few opportunities to practice and refine the skills. The purpose of this project is to develop and test an educational module to increase undergraduate nursing students' knowledge and abilities to assess and to intervene with patients experiencing IPV. Pilot data indicated the educational module was well received and improved students' knowledge, awareness and skills related to assessment and intervention of IPV. The results of this pilot study will be used to revise and refine the module. The long-term goal is incorporation of the module within the curriculum to better prepare nursing students in caring for patients experiencing violence.

Andrew Gier

Class of 2014

The Hessian Mercenary State: The Rise of Hessian Mercenary Forces of the 17th and 18th Centuries

During the eighteenth century, the most militarized economy in the world was that of the tiny German state of Hesse-Kassel, which dominated the world market for mercenaries. During this time, as much as fourteen percent of Hesse-Kassel's male population was serving in the military, and more than fifty percent of the state budget was coming from the sale of mercenaries to foreign powers. This research analyzes the economic and cultural consequences of Hesse-Kassel's prolonged specialization in mercenary export and the impact of the tremendous population loss associated with the mercenary trade on its traditionally agrarian society. It also seeks to explain the trade's abrupt end in the early nineteenth century.

Arnold Guevara

Class of 2013

Turkey's Justice and Development Party and Its Adherence to Secularism

The Republic of Turkey was founded in 1923 and its establishment brought a change to an Ottoman Society that had existed for several centuries. While the Ottoman Empire emphasized its Islamic roots, Turkey distanced itself from its Ottoman past by becoming secular. Since 1923, the state has remained secular and has gone to great lengths to maintain this secularism. However, the past 20 years have seen a change in Turkish politics and Turkish society, as demonstrated by the 1995 general election which resulted in the unprecedented victory of an Islamist Party. In 2001, the Justice and Development Party (AKP) was founded by members of a banned Islamist party and went on to win a landslide victory in 2002. Although the AKP clearly has Islamic roots, it does not view itself as an Islamist party. Is the AKP's rhetoric one of an Islamic Party trying to avoid being shut down, or is it that of a centrist party telling the truth about its adherence to secularism?

Annelise M. Hagar

Class of 2014

A Dollar Well Spent: Consumer Choices of Low to Middle Income Single Mothers

Why do low-to-middle income single mothers spend money on inessential items when there is none to spend? Why not save the money instead? In my research I seek to explore the variety of reasons why single mothers spend money the way that they do in order to understand how this behavior functions in the greater picture of their reality. I found that a single mother's spending is driven by a search for normalcy with the ultimate goal of bringing happiness to her child or children. I accomplished this research by analyzing the spending choices of single mothers and the effectiveness of financial advice from outside sources. I also looked at the societal perceptions of single mothers' consumer choices and the perceptions of single mothers by other single mothers. I gained this information by conducting qualitative interviews with low-to-middle income single mothers using a snowball convenience sample in Boston, MA and Los Angeles, CA.

Ann Harrington

Class of 2013

Current Trends in Nursing Theory Based Research: A Selective Global Survey

Theory and research are connected in the process of developing any new source of knowledge, and this is the case particularly in nursing clinical practice. Global trends indicate nursing research is developing rapidly. The purpose of the study is to better understand the application, sources, and areas in need of improvement for nursing research worldwide. Nursing theorist and Boston College School of Nursing Professor, Sister Callista Roy, provided an email contact list of colleagues from a variety of countries including Germany, Spain, Thailand, Nigeria, and Ireland. Twenty participants completed the survey. Results concluded that worldwide, nursing professionals feel as though nursing educational programs need to place greater emphasis on nursing frameworks and theories to better guide research. In the United States and abroad, a growing demand for research and evidence-based practice needs to be met with a nursing curriculum that educates future health care providers regarding the importance of nursing theory-based research.

Patrick Hyland

Class of 2013

Applying qPCR to Measure Gene Expression Changes in Neurons

Quantitative polymerase chain reaction (qPCR) is a relatively new and powerful method in molecular biology used to measure gene expression in cells. During this reaction, fluorescent probes allow a device to quantify specific RNA sequences in a given sample as they are copied. Graphing the intensity of the fluorescent light signal then allows one to interpret the abundance of different RNA transcripts, and by extension, determine which genes have been affected by an experiment. This project applied qPCR to better understand how a biologically active compound is able to protect neurons against the effects of stroke. This project measured several different genes across four experimental conditions, providing clues about which cell processes were responsible for the protective effect. The results are the product of a multifaceted investigation, which required obtaining high quality RNA from cells, optimizing the reaction conditions, and understanding the proper mathematical theory to interpret the data. This practical experience, as well as data from the experiments, will become an important aspect of my final senior thesis project.

Sean Keeley

Class of 2015

An Occupied Cinema: Political Intimations in Three Popular Films of Vichy France

During the four-year German occupation of France in World War II, French cinema experienced a significant surge in production and popularity, despite new ideological censorship and logistical hurdles. This project examines the period by analyzing three of its most popular and controversial films, particularly focusing on their political undercurrents and their reception in the French press. Marcel Carné's *Les Visiteurs du Soir* is an escapist fantasy misconstrued by the public as a patriotic statement of endurance in the face of occupation. Robert Bresson's *Les Anges du Péché* is a spiritually themed drama whose apolitical nature disguised its makers' strongly anti-Vichy leanings. Finally, Henri-Georges Clouzot's *Le Corbeau* is the most controversial and misunderstood movie of the period, an evisceration of the period's paranoia and dubious ideology in the guise of a dark thriller. All three films were dramatically shaped by the unique circumstances of the period's film industry and by public opinion that re-interpreted their meanings in ways that their makers could never have anticipated. Today, they serve as fascinating case studies that shed light on one of the most troubling periods of modern French history.

Harrison Kent

Class of 2013

The Lost Poems of Charles Sprague: Uncovering the Life and Works of the Banker-Poet

On the edge of Boston Common, near the intersection of Charles and Boylston streets, lies the tomb of a poet celebrated in his own day, but has since been forgotten. Nothing about the fading family name—SPRAGUE—alerts busy passers-by to the resting place of the writer widely known in the middle of the nineteenth century as the “banker-poet of Boston.” The fact that early reviewers called him a “genius” and predicted that his reputation would last into “perpetuity” makes his descent into obscurity all the more interesting. Only a descendant with a passion for family history has prevented Sprague’s works from disappearing entirely under Time’s unyielding scythe. This past summer, I sought this descendant out, intent on uncovering more about the life and works of Charles Sprague. What I found in her private collection of the once-famous versifier provided me with a more thorough understanding of the “banker-poet” than I could have ever imagined – and perhaps, if you spend a few minutes with Sprague’s lost poems, resurfacing for the first time in 200 years, you may never walk so quickly past his tomb again.

Maariyah Lateef

Class of 2014

My Summer in Turkish America

My summer began with an intense desire to learn Ottoman Turkish. After taking a unique history core class last year, I was intrigued by the Ottoman state’s vast influence, religious tolerance, and respectful treatment of women. In order to penetrate its vast history, I decided to learn the language of its capital region. During a full two summer sessions of Turkish at Boston University, my native professor skillfully transformed our classroom into a mini-Turkey. On the first day, I learned to say “merhaba,” (“hello”), and on the last day I translated –on the spot – and sang the chorus of *The Jungle Book*’s “The Bare Necessities” in Turkish! This most wonderful introduction to Turkish paved the way to my enrollment in Turkish courses that have newly debuted at Boston College. In the near future, I hope to use these tools to research and write a thesis on Ottoman history. After graduation, I am looking forward to spending time in Turkey to further my interest in Ottoman heritage and improve my language skills.

Mabel Lee
Class of 2015

A Divided People: The Ethical, Economic, and International Aspects of Korean Reunification

The Korean War has never officially ended. It concluded with the signing of an armistice, but as of today, tensions still arise between North and South Korea. The war has resulted in the division of a previously unified peninsula. The unification issue is of vital importance because it affects the relationships between three major powers— the United States, China, and South Korea. North Korea’s nuclear ambitions, in addition to its violations of major human rights issues, make it one of the most secretive countries in the world. My research project this summer focused on examining the ethical, economic, and international aspects of the Korean unification issue. My research sheds light on factors that are preventing unification from occurring, in addition to an examination of the benefits and costs of having a unified Korean peninsula. I accomplished this research by traveling to South Korea and to the demilitarized zone along the 38th parallel.

Narintohn Luangrath
Class of 2014

An Coimisiún Um Chearta An Duine: Roma Immigrants, Irish Travellers and the Services of the Irish Human Rights Commission

I provided research and policy recommendations for the Irish government regarding human rights issues in Ireland, particularly in the context of the Irish Human Rights Commission’s (IHRC) activities and in relation to the United Nations Universal Periodic Review (UPR) and Convention Against Torture (CAT) processes. I also drafted policy recommendations to amend Irish immigration law, particularly those concerning refugees and asylum seekers. I focused, however, on assisting with the IHRC’s collaboration with the European Roma Rights Centre (ERRC) in caravan eviction cases surrounding Irish Travellers and Roma peoples in Ireland. With particular regard to Travellers and Roma, I also examined the controversy behind defining “ethnic minority” status for nomadic immigrant groups and the political, legal, and social consequences of “ethnicity denial.” My work on the ERRC collaboration extended to Ireland’s most recent review under the UPR. Additionally, I examined gaps in legal protections afforded to nomadic immigrant populations and drafted policy recommendations regarding appropriate housing accommodation for Travellers and Roma peoples in Ireland.

Victoria Luu

Class of 2014

Parameterizing Ocean Acidification

Over the past few decades, scientists have come to discover that the excess emission of carbon dioxide (CO₂) into the atmosphere is changing the chemical composition of the oceans, a process called ocean acidification, which can be very harmful to marine life. The primary parameters for measuring these changes and how they vary over spatial and temporal periods include dissolved inorganic carbon (DIC), total alkalinity (TA), pH, and the partial pressure of CO₂ (pCO₂) in the water. However, the research aims, methods, and strategies can range dramatically between different environments and levels of experience in the field—the ocean acidification data from the experienced OARC with an offshore, polar research area in Alaska have almost completely different focuses from those of new projects developed in a STRI biology and ecology lab in the coastal, tropical waters of Panama. Understanding what ocean acidification is and how it affects different environments can help to explain the variety of projects up and coming in the field.

Joseph Manning

Class of 2014

The Impacts of Politics on Renewable Energy Development in Rural Nova Scotia

Nova Scotia is quickly developing into Canada's maritime leader in renewable energy, recently establishing an energy portfolio requiring the province to harness 40% of its energy needs from renewable sources by 2020. This is fitting, as Nova Scotia has the world's strongest tides and thousands of miles of coastline that are pounded daily by wind and waves. But what policies are making this transition possible? What are the regulations and political attitudes that have facilitated and inhibited Nova Scotia's renewable energy revolution? My research explores the way in which Nova Scotia has chosen to implement renewable energy, paying special attention to the political atmosphere that surrounds the new technology. I critically examine the provincial regulations that currently govern electricity production within Nova Scotia, and I also analyze the public perception of renewable energy projects. Through this research, I discovered aspects of Nova Scotia's politics that might allow it to serve as a model for provinces/states that are looking to transition their electricity grid toward renewable energy. I also assess the obstacles that prevent Nova Scotia from reaching its full potential as a renewable energy leader.

Victoria Mariconti

Class of 2015

Berklee Umbria Jazz Clinics: Studies in Two Languages in Perugia, Italy

Since 1973 the small city of Perugia has hosted one of Europe's most prestigious jazz concert series, the Umbria Jazz Festival. For the past twenty-seven years, the Berklee College of Music has partnered with the festival to offer a two-week clinic that provides international students with jazz education during the day, and the opportunity to listen to the professionals featured each night. When I departed for Italy in July, I had confident expectations of what my experience in the program would be: a chance to polish my jazz piano abilities with some of the best music educators in the world, hear the music performed by living masters, and practice my Italian. Each of these anticipations was fulfilled, and I left Umbria with two sets of enriched vocabulary – but these were not my only gains. The two weeks of immersion in two foreign languages has led me to a new personal concept of the relationship between music and spoken languages. Moreover, this concept has bred a set of questions that have begun to shape the focus and direction of my undergraduate studies.

Claire Marinello

Class of 2013

The Other Side of the Midway: Human Exhibits at World's Fairs

In the nineteenth and early twentieth centuries, world's fairs commonly included exhibits of "exotic" human beings, especially people from the host nation's colonies or oppressed minorities. Billed as educational displays, today they are recognized as a racist and abusive institution. Curiously, most of the people in these exhibits at American fairs willingly agreed to be on display. I used my grant to research attitudes of the participants in agreeing to be part of these displays. Since the participants left few written records, it is unclear whether they were misled, offered adventures, told it would be a chance to educate white people, or simply paid well. My findings form the basis of my upcoming undergraduate thesis, "The Other Side of the Midway."

Sarah Mathey

Class of 2015

Portuguese Language Acquisition to Support Future Study in Latin America

Inspired by questions surrounding the forced evictions occurring in Brazil's Favela communities in preparation for the 2014 World Cup and the 2016 summer Olympics, I was awarded an Advanced Study Grant for language acquisition allowing enrollment in a beginning Portuguese course at Harvard University. The grant supported a desire for future study in Latin America, focusing on the trade-off between economic development and the promotion of human rights.

Phoebe Matthews

Class of 2014

Rocky Mountain Outdoor Educator: Backpacking with Wilderness First Responder

Wilderness medicine is often difficult and demanding. As a professional backpacking guide in the western United States, as well as an aspiring search and rescue nurse, proper training in the field of wilderness medicine is fundamental to both my clients' safety and mine. For this reason, in June 2012 I completed a 10-day Wilderness First Responder course in California, funded by an advanced study grant. As a result of undergoing this intensive training, I learned the foundational skill of a thorough patient assessment, as well as the recognition, treatment, and prevention of medical emergencies that can occur in a wilderness setting. Because of this, I am now better able to safely and effectively do my job as a professional backpacking guide. Additionally, I now have a strong, foundational knowledge of the skills necessary to work in the field of wilderness medicine.

Christopher McLaughlin

Class of 2013

Infant Mortality in Rural Haiti: Creole Language Acquisition and Research into Improvement of Neonatal Healthcare.

In rural Haiti, the integration of a newborn into the family structure is usually delayed by cultural stigma that derives from high neonatal mortality rates. After observing this late development of the maternal-newborn bond in Haiti, I wanted to find a way to directly attenuate mothers to their infant's specific needs earlier on in a newborn's life. Through a combination of improved fluency in Haitian Creole and the Neonatal Behavioral Observation (NBO) system, mothers were directly shown new ways to connect with their newborn and customize their care to their newborn's unique traits and sensitivities. By familiarizing mothers with their child's specific needs in their native language, advances were made in the development of the maternal-newborn relationship, which in the long term, may have effects on the local neonatal mortality rate and the early development of a newborn-centered family. This combination of language fluency and direct early intervention represents a cost-effective and efficient way of improving neonatal healthcare in a foreign country.

Emily Mervosh

Class of 2014

The Effect of a Cross-Community Orchestra on Relations Between Catholic and Protestant Youth in Northern Ireland

Documentary filmmaking is, by nature, unpredictable, in a form of constant change, and requires quick and creative thinking. My involvement in commercial and television show production through various internships had given me a basic understanding of the film world, but I had never actually made a film before. I found the idea of sharing people's stories through film very intriguing. This presentation will discuss the challenges and discoveries I encountered over the course of my journey to Ireland to shoot a film about a cross-community youth orchestra. In order to produce my own film, I had to hire a crew, write release forms, create a shot list, and learn several other skills in a short amount of time. The best way to learn, I discovered, was to reach out to many different people for their advice and help (professors, line producers, lawyers, etc.). One of my most valuable discoveries was that in documentary filmmaking, research and planning often fall by the wayside.

Sarah Messer

Class of 2013

*A Different Perspective:
Intensive Study of German and Future Research
On the French Experience of the World Wars*

In order to earn my doctorate and become a history professor, my projected career path, I will need to be proficient in two foreign languages. As I have studied French for many years and consider myself fluent after spending the past semester in Paris, I decided last spring to apply for an Advanced Study Grant to jumpstart the acquisition of my third language. Given that my area of greatest academic interest is the social history of France during World War I, the most logical language to begin learning is German. I therefore used the grant money to attend a four-week language program at the Goethe Institut in Göttingen, Germany during the month of August. While I learned more German than I would have thought possible in such a short period of time, I also acquired valuable skills in communicating across language barriers and discovered a great deal about the cultures of my fellow students.

Chelsea Mickel

Class of 2015

*Religious Amphibianism in Bulgaria: A Study of Syncretism of Sufi Bektashi and Pomak
Islam in Orthodox Christianity with Bulgarian Language Study*

During my time in Bulgaria, I attended an intensive language program at Veliko Turnovo University while working on some independent research. I studied Religious Amphibianism in Bulgaria, which in this case meant the impact of Sufi Bektashi and Pomak Islam from the Ottoman Empire on modern-day Bulgarian culture, and its existing architecture, and how this translated into renewed religious fervor and Orthodox identity after the fall of Communism.

Benjamin Miyamoto

Class of 2015

An Introduction to the Israeli-Palestinian Conflict:

Interviews with Peacemaking and Human Rights Advocacy Organizations

Attempting to study a conflict is similar to conducting an interview. It is necessary, with both conflicts and interviewees, to construct an understanding of their past and present before venturing into their possible futures. In my project, I attempted to acquire an understanding of the Israeli-Palestinian conflict, the groups involved, and the possibilities for their future. I collected the majority of my data from personal interviews with employees, representatives, and directors of peacemaking and human rights advocacy organizations that mediate the Israeli-Palestinian conflict. In learning how to conduct interviews on the ground, I found that the method of investigation used to understand and integrate an individual's perspective in the larger social, cultural, political, and religious context is an excellent model for understanding the conflict as a whole. The metaphor will only go so far, however, for the simple reason that conflicts are more complex than individuals. Where each of my interviewees had their own complex history and touch point in the conflict, the conflict itself is an amalgamation of all of their perspectives.

Alex Moscovitz

Class of 2015

The Introduction of Carbon-Negative Gasification Stoves to the Dominican Republic

Biomass is an abundant resource that is the only available energy for 2.7 billion people on the planet and the majority of Dominicans. However, conventional wood and charcoal burning has a negative impact on the environment and the health of people who use it for their cooking needs. We examined the issues surrounding the use of wood biomass in the Dominican Republic and how pelletized agricultural residue could be used as a fuel source in a gasification process to alleviate a number of problems. These include environmental issues such as deforestation, air and water quality as well as climate change through carbon release, health problems such as respiratory disease, and the social cost to women who are responsible for collecting wood. We began the introduction and testing of an efficient gasification stove prototype, established local manufacture and a source of agricultural residue. The goal of the project is to meet the cultural needs of the local Dominican and Haitian population while creating self-sustaining, local, commercial enterprises in stove and pellet production that will help overcome environmental, health, and social problems.

Colin Notis-McConarty

Class of 2013

The Politics of the Battle of the Crater, 1864

On July 30, 1864, the Union Army suffered one of the most horrendous defeats of the American Civil War outside of Petersburg, Virginia. Detonating 8,000 pounds of gunpowder at the end of a 510.8-foot tunnel presented the Union with one of the best opportunities to end the Civil War. Yet the disaster that followed the brilliant plan included every element of drama possible in one event. Old feuds, drunkenness, and cowardice ruined Union generals while racism plagued the ranks of both armies, but politics was at the center of it all. Indeed, Union leaders made a fatal last-minute decision to avoid the use of African-American troops, fearing the repercussions the decision might have on Abraham Lincoln's chances for reelection four months later. In the seven months that followed, northern newspapermen and Radical Republicans in Congress strived to use the fiasco to accomplish their political agendas, while officers in the army strived to protect their own reputations. Following these events in archival collections along the East Coast and on the battlefield itself 148 years later, the events of that bloody summer and its politically tense aftermath present an even more dramatic story.

Annemarie O'Toole

Class of 2013

Mary Kate O'Malley

Class of 2014

The Effect of 20-minute Stress Reduction on Nurses' Job Satisfaction

The purpose of this prospective longitudinal intervention study is to examine the impact of a 20-minute session of massage and relaxation techniques on registered nurses' overall job satisfaction. According to several recent literature reviews and evidence-based studies, there has been an increasing cause for concern related to high rates of nursing burnout due to elevated stress. In a profession such as nursing, the quality of a nurse and his or her care can have serious implications for patient satisfaction and outcomes. Review of literature regarding nursing burnout and stress levels state that nurses are experiencing greater workloads due to the national nurse shortage, shorter hospital stays, and higher patient acuity, therefore increasing the risk for high stress and burnout. In this study, labor and delivery nurses complete an online demographic questionnaire, a stress and coping scale, and a job satisfaction scale at the beginning of each month. An intervention day was scheduled during the middle of each month during which study participants received a stress reduction intervention, including massage and meditation. Participants then re-evaluated themselves on the stress and job satisfaction scales in hopes to provide evidence of stress reduction techniques that decrease nursing burnout and increase job satisfaction.

Annie J. Park

Class of 2013

(Re)Discovering Music in Cremona

This project aimed to gain advanced violin performance and musicianship techniques by working with distinguished faculty at the International Music Academy. The two-week long intensive music festival consisted of daily lessons, rehearsals, and concerts. The city of Cremona, home to such renowned luthiers as Guarneri, Stradivari, and the Amati family, fostered a concentrated musical atmosphere. Guided tours and visits to the Stradivari Museum and local violin makers' shops contributed to expanding my knowledge about the construction and mechanics of the violin

Mary Popeo

Class of 2014

Japan's Christian City: Exploring Nagasaki Through Public History

Christian history is thickly layered in the Japanese city of Nagasaki, from its time as an *entrepot* for Jesuit missionaries in the sixteenth century to the atomic bombing in 1945, and beyond. Fascinated by this city's diverse, heartbreaking, and hopeful history, I set out to investigate the ways in which Christianity shaped Nagasaki's unique identity. At first glance, Japan's religious scene is highly secular. However, through public history exhibited in museums, churches, and memorials, I gleaned that the preservation of the city's Christian legacy is indeed important to many Nagasaki residents. Listening to knowledgeable professors, spiritual leaders, and insightful laymen complicated my picture of a 'homogenous' Japanese society. During my stay I learned about religious education at Tokyo's Jesuit universities, interfaith dialogue at Nagasaki's bomb commemoration services, and indigenous Christian movements at remote island churches. Ultimately, my research gave me a better understanding of Japanese spiritual attitudes, the indigenization of Christianity, and the communal and abstract religion of 'Japaneseness.'

Patrick Regan

Class of 2014

Lessons from Down Under: Australian Health Policy and its American Implications

Early in the Obama presidency, both lawmakers and citizens of the United States engaged in a bitter political battle over healthcare reform. Hopes and fears were put on display in protests, town hall meetings, and the halls of Congress. Meanwhile Australia, a country with similar historical, political, and sociological origins, has maintained universal healthcare for almost 50 years. The island continent has some of the industrialized world's lowest health costs as a percentage of GDP; its single payer mechanism, Medicare, holds widespread support among its populace. With the coming implementation of the Affordable Care Act, it is imperative America learn the virtues and vices of universal coverage from its industrialized cousins. Due to aforementioned similarities, Australia is an ideal comparison. This oral presentation will explore what Australians think are admirable aspects of their healthcare system and how these elements apply to the United States. It will also examine the similar pitfalls of both models, and major reasons why global debate on health policy will continue into the future.

Robert Rodine

Class of 2013

Douglas Greig

Class of 2013

First Dollar: An Experiment in Social Entrepreneurship

First Dollar is an experiment in education, where instructors are not teachers, but rather facilitators of the students' own creativity and passion. Add to this the participation of local entrepreneurs and creative professionals, and the result is a unique educational experience that aims to supplement traditional schooling in order to build lasting change in communities. The project was conceived after experience volunteering at various educational programs for underserved youth. Students get lost in large classes, parents and teachers do not communicate, and standardized tests dictate curricula and funding. Working with the students made apparent that the traditional teaching of math, reading, and writing failed to grasp the students' attention, and resulted in frustration and apathy. Students struggle to see the real-world practicality of the skills they learn in the classroom, and risk under-developing the tools they will need to succeed later in life. First Dollar channeled the energy and creativity of youth into projects aimed at correcting these gaps in traditional education, to see if the experience of building a business from the ground up could provide students with opportunities to experience aspects of the professional world, and how their education will serve them in real-life situations.

Terese Rutkowski

Class of 2014

Natural Incentives: To Support Language Study and Research into the Socio-Economic Impact of the EU's Natura 2000 in Poland

Poland is the only member of the EU to avoid a decline in GDP in the post-2000s recession. Despite this progress, Poland seeks further growth in its rural regions. Such growth is limited by environmental policies, particularly those implemented after Poland's accession to the European Union. Among the policies promoting sustainable development is the Natura 2000, an ecological network of protected sites, often criticized for its bans and limitations. In this study, the Białowieża Primeval Forest was examined as an example of a Natura site in a rural region, disputed between locals and conservationists. Previous research has focused on the local population's view of impact of the forest preservation on their economic livelihood. This study focused on the attitudes of the conservationists and scientists who inhabit the community. Interviews of conservationists and scientists were conducted to determine their role in communicating and implementing ecological goals to local populations. I found that few conservationists interacted with locals or claimed responsibility in the debate, demonstrating a disinterest in dialogue. On a larger scale, this debate reflects a need for alternative policy approaches such as social integration as part of multi-level governance.

Sam Kent

Class of 2013

Rickert's Hiatus Irrationalis: Understanding Reality

Heinrich Rickert, a prominent Neo-Kantian thinker who wrote fiercely against the popular rise of German Positivism, attempted to resolve the logical riddle of the *hiatus irrationalis*, the gap between nature's inherent irrationality and rational human concept-formation. He questioned how humans orient ourselves when studying natural and social phenomena. This panel presentation will convey traditional epistemological solutions offered. In particular, the failures of Platonic conceptual realism and the epistemological realism of the Empirical Psychologists will be analyzed before the work of neo-Kantian philosopher Heinrich Rickert is approached. Rickert's thesis that empirical reality is a *heterogeneous continuum*, and his resulting epistemology of the natural and historical sciences, will be evaluated to show both the extent and the limit of his work. Throughout the presentation, the underlying question of how we understand our natural and cultural surroundings will be explored.

Kelly Saintelus

Class of 2013

Minority Student Attitudes Towards Race-Conscious Awards

Affirmative action has allowed countless students to have access to opportunities of higher education in schools where they otherwise might not have been accepted. With this comes many challenges, but some institutions have tried different ways to combat obstacles minority students face. One of the ways institutions try to help these students is by building strong support systems that act as safety nets. Another way is by building up their self-esteem, and this often translates into awarding them academic achievement awards that are awarded partly on the basis of race. These awards are intended to be forms of positive reinforcement, but are not always perceived this way by their intended recipients. The aim of this research is to determine how race-conscious academic achievement awards have come to be viewed by students of color on a predominantly white campus, specifically at Boston College.

Yvonne Shih

Class of 2015

Nurse-to-Patient Ratio: Balancing the Demand and Supply of Nurses

Like any business, a hospital depends on reimbursements and revenue to pay for its employees' services. In many hospital institutions, nurses continue to make up a high percentage of employees because their services include twenty-four hours a day and seven days a week of bedside care. As healthcare costs in the United States continue to rise, a general concern about increased consumer medical expenses grows. In the 1990's, hospitals began to lay off nurses to decrease their expenditure on labor. This downsizing took a huge toll on the nurses who continued to work because they had to care for more patients. This business-driven decision has opened up discussion about how to prevent nurses from being overwhelmed with more patients than they can handle at once. So far, California is the only state that solved this predicament by implementing a government-mandated nurse-to-patient ratio. However, other states like Massachusetts cannot agree on this resolution. An attempt to balance the demand for patient care and the supply of nurses in the United States has been very difficult to achieve.

Rui Soares
Class of 2013

Increased Mitochondrial Damage Associated Molecular Patterns (DAMPs) in the Peritoneum of a Murine Sample Induced with Sepsis

Sepsis is an immunological condition defined by the presentation of bacteria and Systemic Inflammatory Response Syndrome (SIRS), which is a diagnosis characterized by high temperature, tachycardia, leukocytosis, and altered respiratory rate. This often results in multi-organ failure due to an uncontrollable infection and overwhelming immune response. It has been observed that similar clinical conditions have resulted from sterile injuries that release mitochondria Damage Associated Molecular Patterns (MTDs) into the blood leading to SIRS and multi-organ failure. This study sought to determine if there is a correlation between MTDs and mortality in a murine model of sepsis. Polymicrobial sepsis was induced through cecal ligation and puncture (CLP). Animals were sacrificed 24 hours post CLP and the plasma and peritoneal fluid were extracted. Samples were divided into predicted to Live (Live-P) and predicted to Die (Die-P) groups via plasma IL-6 levels (high IL-6 indicates higher mortality rate). To measure the presence of MTDs, RT-PCR was used probing for Cytochrome B, a mitochondrial gene. The data shows that by 24 hours, Die-P mice have significantly increased MTDs in the peritoneal cavity as compared to Live-P mice, which indicates MTDs presence correlates with mortality in CLP induced sepsis. Furthermore, there was no difference seen in the plasma. Future experiments will determine whether MTDs impair the immune response toward bacterial elimination.

Nicholas Spetko
Class of 2014

Tarahumara Medical Challenges

La Clínica Santa Teresita is a Jesuit-associated medical clinic in Creel, Mexico that is part of a larger network of organizations directed to the wellbeing of an indigenous tribe of Northern Mexico. Infamously secluded in the hostile landscape of the Sierra Madre, the Tarahumara, or Raramurí, are peaceful people that have isolated themselves from the Western world for hundreds of years. Yet further Mexican exploration into the interior by both railroads and elusive drug cartels has put a further strain on the Tarahumara. This research project explores how La Clínica has been able to overcome the Tarahumara's mistrust of the West for the sake of the health of the children in the tribe. As much a story of the consequences of imperialism and the power of modern medicine, it is too a story of the importance of faith in humanity.

Corey Streitwiesser

Class of 2013

Redefining Two Moving Targets: Plato on Math and Philosophy

If Plato is a thinker to whom we can attribute no distinct mathematical finding, neither is he a disinterested observer of the discipline. The goal of this talk will be to look closely at key passages from *Republic VII* to understand more fully the role that Plato assigned to mathematics in the formation of a philosopher. We will find that philosophy and mathematics are deeply entwined for Plato, as his understanding of geometry informs his outlook on philosophy, and vice versa.

Conor Sullivan

Class of 2013

An Alternate Approach to Bridging the Achievement Gap: Full Service Education

Today in the United States of America, there are large gaps in school achievement between students from disadvantaged backgrounds and students from more privileged backgrounds. In an effort to bridge the educational achievement gap, recent legislation such as the No Child Left Behind Act and Race to the Top Act have used increased pressure on school districts, standardized testing, and competition as a means to enhance achievement. Unfortunately, these attempts have been largely unsuccessful. There is another method, however, to bridge this gap: full-service education. My project evaluates three different full-service schools and their attempts to bridge the achievement gap by offering services to improve the daily lives of students from low socioeconomic backgrounds. Advocates of full-service schools believe it is impossible for students to succeed as highly as their privileged counterparts if they are not cultivated in an environment rich with resources and social capital. Although a cost-benefit analysis is still needed to determine the true impact of full-service schools, full-service education has proven to be highly effective in bridging the achievement gap and is a potential model for educational reform.

Rakeen Tanvir

Class of 2013

Rainwater Harvesting in Nepal: A Microcosm of the Global Water Crisis

Nowadays, U.S. residents seem to have easy access to clean, abundant, and cheap water that comes straight from our taps. However, we will run out, as has already happened in Nepal. It is a country where the unfortunate poor, who need water the most, often cannot afford it, while the rich can get more water than they need. From within these destitute conditions, there are homes and businesses that have chosen to take control of their lives and their water, by adopting the practice of rainwater harvesting. They have installed efficient systems that catch and filter enormous amounts of rainwater that fall on their roofs and courtyards. These early adopters are painting a picture of a practice that will eventually become mainstream all over the world. Non-governmental organizations in Nepal are racing to raise awareness and install rainwater-harvesting systems as fast as possible, but they cannot do it alone. The private sector needs to invest in the future of the city by investing in the future of rainwater harvesting.

Peter Tasca

Class of 2013

"The Widening Gyre:" Aestheticism and the Occult in the poetry of William Butler Yeats

In 1917, newlyweds W.B. Yeats and Georgie-Hyde Lees embarked on what eventually became an eight-year project of automatic writing, or communication with the spirits of the dead. The result was *A Vision*: a theosophical and occult "system" purporting to explain the fluctuations of the imagination, history, and human personality. Although it has achieved a kind of notoriety in the literary world (the modernist poet Ezra Pound declared it to be "very, very, very bughouse"), the student of Yeats cannot avoid *A Vision*. Indeed, despite the obscurantism of both design and vocabulary, the "system" of *A Vision* transformed Yeats's thinking, revived his flagging poetic career, and placed him as a modernist poet in the company of Eliot and Pound. At both the National Library of Ireland and the Sligo County Yeats Summer School, my research focused on the relationship between *A Vision* and the development of a modern poetics in Yeats's later oeuvre.

Diana Tran
Class of 2014

Social Media and the 2011 Tōhoku Earthquake and Tsunami

The 2011 Tōhoku earthquake and tsunami forced the people of Japan to open up not only to each other, but also to other nations. In addition, the 2011 Tōhoku earthquake was one of the first natural disasters to be thoroughly experienced through social media. The people of Japan were able to reach out for assistance through social media applications like Facebook, Twitter, and Skype, and people outside of Japan were able to get a glimpse of the effects of the earthquake and tsunami through a plethora of user-uploaded videos on YouTube, newscasts, etc. Social media programs have connected nations; especially after the 2011 Tōhoku earthquake, people have shown a new level of compassion and altruism unlike any time before the advancements of the Internet.

Alison Wawrzynek
Class of 2014

An Analysis of Modern Globalism: Economic Policy and Social Change in Germany

As a chief economic power of Europe and a leader in the Euro Zone Crisis, Germany provided the ideal case study for international socioeconomic policy. Synthesizing German language study at the Goethe Institute Berlin with policy research at the Deutsches Institut für Wirtschaftsforschung (DIW) and Wissenschaftszentrum Berlin für Sozialforschung (WZB), this investigation analyzed the impact of Germany's current policy decisions and its socioeconomic transitions. Research work with Dr. Dorothea Schäfer and Dr. Ulrich Kohler highlighted the causes of Germany's rise to economic prominence and the effects of critical life events on economic policy.

Wei Kuang Pan

Class of 2014

Erasmus Academy: To support German language study for reading and translation in Philosophy.

This study consisted of an intensive eight-week German class designed for graduate students interested in taking the language for use in reading and translating. The class met in an online conference and included extensive self-study, culminating in a sample proficiency exam. The intention of taking this course was to use it as an aid for future philosophy studies. Along with French, Latin, and Greek, German is one of the key languages necessary for reading Western philosophers. While translations of philosophy texts are often widely available, they sometimes lack the original tone or do not convey the author's full meaning. German, in particular, is necessary to appreciate significant philosophers such as Immanuel Kant and Friedrich Nietzsche

Grace West

Class of 2015

Race and Religion in the Tar Heel State: The Afro-Moravian Experience in North Carolina

When the Moravian Church, a small Protestant denomination originally from Central Europe, settled in the American South in the late eighteenth century, the members faced challenges to their spirit of egalitarianism. The Southern ethos, with its emphasis on slavery and racial hierarchy, influenced the Moravians, who gradually began to accept the region's philosophy toward Africans and African-Americans. Last summer, I conducted research in the Moravian Church archives in Winston-Salem, North Carolina, and studied audio documentary production at Duke University in order to explore the history of black slaves and their descendants within the Moravian Church community of the North Carolina Piedmont. My project resulted in a nineteen-minute audio documentary focused specifically on the development and evolution of St. Philips Moravian Church, the only African-American Moravian congregation in the United States, which remains a small, yet significant, force in Winston-Salem today.

Dewan J. Woods

Class of 2014

Extraordinary Features and Capabilities of Metamaterials

In this paper, I explore the exotic properties of metamaterials, artificially composite structures capable of many useful applications. Metamaterials have been shown to exhibit foreign properties not seen in nature. Using these unique materials, one can demonstrate features such as the metamaterials perfect absorber, negative-index material, and wave guiding, namely invisibility cloaking. These processes, as well as their applications, are the focus of this paper.

Katie Wullert

Class of 2015

Bambini e Libri: A Study of Gender Depictions in Italian Children's Literature

Children's literature can play a key role in socialization, teaching children the norms and expectations of their society. The perpetuation of gender norms and stereotypes in children's books has the potential to impact children's beliefs about their own gender and the actions they feel are appropriate for that gender. Extensive research has considered the portrayal of female characters in American literature and its potential impact on girls. This study also considers the portrayal of girls and women but focuses on gender depictions in fifty classic Italian children's stories in an effort to see what norms and values are expressed in another culture. These classic stories were chosen as they have been deemed significant within the culture and are likely to be read to many Italian children. Using an Italian frame of traditional masculinity and femininity, characters were coded based on five possible traits: active, free, passive, restrained, and gender neutral to determine if gender roles are largely upheld or challenged.

Lorenda Ziazikova

Class of 2014

Civic Education and Democratic Development in Russia

Russia's political ramifications after the 2011 Duma election demonstrate a fundamental ambiguity about its democratization process: residents of major cities such as Moscow and St. Petersburg demonstrated against the violation of free and fair elections granted by a democracy, while citizens of the Kavkaz Republics remained indifferent. This observation tantalizes the observer to scrutinize the cause of the exhibited political activism and submissiveness, which are indeed inimical to understanding society's ability to democratize with the state. Political and economic policies alone do not suffice to deem a state as fully democratic; these reforms will do little good if people are not effectively, efficiently, or adequately participating in the state's democratization process. Thus, this research attempts to attribute the two different sets of reactions towards electoral fraud by analyzing how civic education cultivates democratic norms in the growing population of the state to make them active citizens in the developing democracy.