

Take Five Scholars Program Abstracts

*Featuring Abstracts from the
2011 Take Five Graduates*

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UNIVERSITY OF ROCHESTER

TAKE FIVE

SCHOLARS PROGRAM

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Take Five Scholars are among the most interesting students on campus. By definition, they have strong interests in two or more different and often disparate fields.

Each Take Five Scholar is granted an additional time to explore an area of intellectual interest outside his or her major. The self-designed course of study, focused around one central theme or idea, introduces the student to the subject and sets the stage for a lifetime of further learning.

Take Five Scholars embody the true spirit of a university. They are learning for learning's sake, not to impress an employer or graduate program and not to simply amass another credential. The decision to spend time and energy voluntarily studying a new subject is not one that can be lightly made. For those reasons and for many others, the University of Rochester is justifiably proud of its Take Five Scholars.

We invite you to read about the projects undertaken by the Take Five Scholars who will be graduating this year. Each is as special, individual, and worthwhile as the students themselves. These unedited accounts, written by the Take Five Scholars themselves, convey both their enthusiasm for and appreciation of the program.

So read and envy them their youth and vigor, their drive and curiosity, and their promise and potential. If you are like anyone else associated with this group of energetic students, you will be left wondering, "Why didn't I study that in college?"

For more information on the Take Five Scholars Program
Please contact its Administrator at (585) 275-2354

Roman Monuments and their Influence of Ancient Roman Society

Sarah Ackroyd

Coming into my Take 5 year, I had already taken a broad base of courses which cover my Take 5 interest, “Roman monuments and their influence on society.” In the beginning courses of my program, I aimed to learn about the different types of architecture and connect this art form to the hierarchal society of the Ancient Romans. Through these academic endeavors I learned about the characteristic architecture of antique buildings, the historical surroundings of the Roman Empire, and the engineering principles, materials, and design elements which make Roman architecture truly unique. What I ended up discovering in my studies was the evolution of Roman architecture and that it was not a simple “type” of art as I had envisioned. What I assumed originated by strictly Roman descent, was actually a culmination of design elements from many other groups, namely the Etruscans, Greeks, and other barbaric groups. But this base termed the basic elements of Roman Architecture - and what came about in Roman designs, was an embellishment of earlier designs, and new innovative building techniques and use of extravagant materials. In my exploration of what I originally thought to be a simplistic style was actually complex; I have been able to connect historical and geographical elements into my analysis of Ancient Roman Architecture. My Take 5 courses have allowed me to expand my mind and work similarly to a thesis project, spending this last semester dedicated to researching the structure and historical circumstances of the Colosseum. I am excited to incorporate the valuable information I have learned from my Take 5 studies in this capstone project to summarize my studies and apply their concepts to a famous monument!

My interest in Ancient Roman architecture stems from my familial background in engineering and Italian studies. As a Take 5 student I have been able to explore these topics by studying Ancient Roman monuments. However, it has also allowed me to challenge myself to embrace studies in humanities. As a science major, going to the stacks and writing a research paper based about ancient architecture was never part of my academic agenda. While I plan to continue to move on into

the medical field, I am grateful for the qualitative skills I have learned through my Take 5 studies and have become thrilled by my continued interest in my Take 5 subject. My studies in art history and classical studies have allowed me to grow personally. I am grateful for the opportunity to expand my knowledge and spend an academic year pursuing a personal interest, and look forward to finishing up this year with a rewarding capstone project!

Politics, Philosophy, and the Rise of Impressionism in France
Ellie Adair

The goal of my Take Five project was to explore the relationship between the political situation in France during the late 19th century and the rise of the Impressionist movement. Anxious to discover points of philosophic convergence, I planned to study historical events as they compared to the dominant cultural trends, prevalent political interests, and developments within the artistic community.

As my Take Five year nears completion, my understanding of the philosophic moment Impressionism grew out of, and also worked to shape, has greatly increased. Additionally, my understanding of the larger political, social, and artistic environment throughout 19th and 20th century Europe has also expanded; I learned as much about other areas of art and philosophy as I did about the art and philosophy surrounding my specific topic. Moreover, the ways social, political, and artistic history overlap are much more complex and nuanced than I ever could have anticipated. For example, Napoleon's mandate to redesign Paris created the parks, theaters, and other places of leisure that the Impressionists painted—the modernization of Paris was the genesis of the highly modernized style and subject of Impressionist art.

The French language classes incorporated into my program were also highly beneficial and afforded me the opportunity to travel to Paris in the Summer of 2010 for additional language experience. Overall I feel I've accomplished the goals of my project and also gained valuable insights into art history that extend beyond the scope of my Take Five project.

An Arabic Perspective on Conflict in the Middle East
Drew Alessi

My Take 5 program was titled “An Arabic Perspective on Conflict in the Middle East.” My goal during my Take 5 program was to challenge my Western views of the Middle East by examining conflict in the region in the context of local culture. I began studying Modern Standard Arabic, and planned a ten-course program of religion, anthropology, and international relations courses related to Islam, ethnic conflict, civil war, and the Middle East region. I finished off my fifth year with an independent study titled “Ethnic and Religious Conflict in the Middle East,” in which I drew on these multidisciplinary theories to study cases such as the Sunni-Shia conflict, Arab-Israeli conflict, and the Kurdish question, among others.

My program did not follow the plan I originally set forth exactly, due to some changes in course offerings. However, I still learned a great deal and surpassed my expectations for the Take 5 year, while these unexpected program alterations allowed me to explore some interesting topics that I had not originally planned, such as the U.S. involvement in Iraq and Afghanistan, and theories of revolution. Over the last year I have gained a lot of knowledge about the peoples and cultures of the Middle East, as well as the conditions and relationships that so often lead to conflict in the region. In addition, my approach to the topic has allowed me to develop a whole new perspective on U.S. foreign policy in the Middle East. In sum, my program successfully met my goals, and was a great experience.

Health and Community: Influence of Society on Individual Psyche
Yoshiko Arahata

I am grateful to have had the opportunity to pursue my Take Five studies. My goal was to study how extrinsic elements around an individual, such as social contacts and the media, affect the individual’s psyche, including his or her thoughts, spiritual beliefs, and behaviors. My proposal was divided into a few categories: mental, spiritual, and individual health (psychology, medicine, religion,

philosophy); community influences (sociology, public health laws and ethics); and exterior influences (media, arts). It was my goal to understand how society influences an individual's psychological processes and physical well-being, and how people can build healthy relationships in their social environment.

After having completed the first semester of Take Five studies and having finished half of the second semester, I can genuinely state that I have learned a lot as a Take Five scholar. I was able to take half of my originally proposed courses (the rest were cancelled so I took other courses). At first, I was disappointed when I figured I would need to take alternative courses to substitute for my proposal courses but they actually turned out to be well suited, perhaps even better for purposes of my study as it allowed me to look at a wider array of influences on individuals' thought processes and health. In *Relational Processes and Emotions*, one of the most challenging yet most interesting courses I have ever taken in my undergraduate studies, I learned the significance of interpersonal relationships to one's health, different attachment styles (in both romantic and non-romantic relationships), and how people cope with individual differences in personality, intimacy, and conflict resolution. I felt this course has not only helped me understand about relationships in a broad sense but also in relationships I have with people in my own life, including my family, friends, peers, co-workers, and residents on my hall at the dormitory. In *Love, Friendship, and Community*, I learned how human interaction and strong personal ties build the social dynamics we have today through discussions, my independent research, and presentation. In *Human Motivation and Emotions*, I have been learning the driving forces of motivations (driving energy and direction) as well as the significance of intrinsic and extrinsic motivations in our lives.

In addition, I have learned the importance of individual physical care as well as governmental preparation in making the environment where all citizens are able to live healthily. In *Behavioral Medicine*, I have been examining the connection between psychology and the maintenance of physical well-being from the medical perspective. In *U.S. Health Care System*, I learned how the health care systems in the

U.S. as well as in foreign countries have shaped the way people make choices for their physical care. I gained an understanding of the complication of universal care, insurance, social, economic state and how the laws have been affecting people's lives. In *Public Health Ethics*, I have had opportunities to contemplate the influence of governmental laws on health through a philosophical perspective and debate the ethical issues regarding public health laws and future disease prevention. Moreover, through *Visual and Cultural Studies* and *Modern Art History*, I have had unique experiences in discussing how the social media and arts, including television, paintings, radio, photographs of the 19th and 20th centuries have portrayed social life. The role and impact of those mediums in shaping subjectivities and conceptions of cultural differences are important and challenging—not only have they led the society to review the class identity but also, they advanced the society to accept the fluidity of the position of women in the world as well as gender and sexual identity, all of which have contributed significantly to people's thought processes, their mental health, and ultimately, the community's values.

Thank you very much for allowing me to study as a Take Five Scholar. I can sincerely say that I have learned a lot and enjoyed this valuable academic opportunity. I have gained a better understanding of how an individual's psyche is shaped through extrinsic factors around him or her, and hope to contribute in making a healthy community around me by positively influencing others.

***Progressive Photojournalism through the Lens of Sustainability
Culture***

Jessalyn Ballerano

Going into my Take Five experience, I knew there would be valuable connections between my classes, as I had carefully planned a program that would link my interest in communications with the “green” movement that was building momentum globally. I had no idea that learning about everything from ecology and green market trends to Photoshop editing and interview skills would give me a renewed sense of my capabilities and my goals. Through journalism studies, art classes

and independent research, I learned so much about how people communicate with words *and* images, not just to give and receive information but to portray, and influence, our complex understandings of reality. I stepped out of my comfort zone to take ecology and political science courses, and pursued research that went deeper than a single course assignment; I confronted new perspectives and expanded my own understanding of sustainability and our relationship to the environment in ways I never expected to.

The independent research that my Take Five program allowed me was beyond valuable to me, not only for the insights I gained into journalism, photography and sustainability but for the confidence I gained by carrying out intensive projects. In my semester long study “Photojournalism in Crises,” in which I examined media representations of the 1989 Exxon-Valdez and 2010 Deepwater Horizon oil spills, I cemented my ability to contextualize a large amount of data, analyze it, and re-articulate it with an integrative, original perspective. The skills I had built course-by-course throughout my undergraduate career were finally put to the test, and I passed! My subject was inspiring to me -- I wanted to see how creative journalism could be put to good use for an issue I am passionate about. But even more invigorating was the challenge and satisfaction I received from tackling larger questions, according to my own design.

As my Take Five Year comes to a close, I find myself equipped with artistic, writing, and organizational skills that I had been aware of before but had never truly utilized to their full potential. While taking my planned courses I got to apply what I was learning to a year-long internship with the Center for Sustainable Living, a non-profit education and resource organization. The Take Five is not designed as a career booster -- indeed I chose to apply because I was (and still am) extremely passionate about sustainable lifestyle education and the power of media to make change. But my scholarship naturally manifested as real-life experience with event programming, marketing design, PR and non-profit organizing, in a context that was meaningful to my interests and in line with the research and ideas my Take Five provided.

The Ethics of the U.S. Legal System
Jessica Baltman

I have always been fascinated with sensational court cases, often closely following their details in the media. As I matured I stopped viewing these cases as merely entertaining stories, and began to think deeply about the impact court outcomes can have on people's lives. I started wondering if the inherent trust we place in the court system to make such consequential ethical decisions is deserved.

The objective of my Take Five Curriculum was to gain the knowledge and skills needed to make a well-informed evaluation of the ethical nature of the US legal system. To do this I wanted 1) to arrive at an objective understanding of right and wrong by carefully and thoroughly exploring current moral theories, and 2) to gain detailed knowledge of the structures and processes of the US legal system. After taking the classes "Ethics" and "Social and Political Philosophy" I now realize that I may not ever attach myself to a specific moral philosophy. Even though moral theories by definition concern matters of "right" and "wrong," deciding which theory is the "most right" is no easy task. Unfortunately, because of scheduling conflicts I was not able to take the courses best suited for learning about the US court system. However I was pleasantly surprised by how relevant the class "Psychology and the Law" was to my Take Five objective. In this class I learned a tremendous amount about how the US court system functions including the ways in which psychological issues are dealt with.

As a one semester Take Five student I now realize that my initial Take Five goals may have been too ambitious; developing the capacity to make a truly well informed ethical evaluation of the US legal system takes years of study. Even though I do have the ability to make this evaluation, I have gained a new appreciation for the vastness and complexity of this topic.

Exploring the World of the Unseen in Entertainment
Raphael (Rafi) Benjamin

Growing up, my summers were always spent differently than my friends. Attending circus camp certainly was not the norm. By the time I was a senior in high school, I successfully auditioned for Circus Smirkus, performing skills such as juggling, equilibratics, and human pyramids in their big top tour. During my two years spent touring with this youth circus, I learned a lot about the life of a performer—everything from the amazing high of a standing ovation, to the low of an on-stage injury. Throughout my time there, however, I found myself asking many questions about topics such as “how did all these people know to come see the show” and “how do the technicians integrate all of the lights and sounds.” I know a lot about performing. Before my Take Five year, I knew very little about the invisible side of entertainment. This is precisely what I used my Take Five year to investigate; by taking primary classes about behind the scenes theatre, while studying marketing to support that work, I explored the world of entertainment management with a largely hands-on approach.

Mission complete. I am happy to report that I have experienced first hand the internal workings of “The World of the Unseen in Entertainment.” Thanks largely to the hands-on courses and internships offered through the University of Rochester’s International Theatre Program and Simon Business School’s undergraduate section, I have a firm understanding of not only what goes into a small scale production behind the scenes to make it successful, but of all the work and creativity demanded of running a public relations and marketing campaign. The Take Five year has been an invaluable learning experience, and I will keep the knowledge and skills gained with me for the rest of my life.

Media and Its Effect on Gender Roles and Perceptions
Alyssa Berkowitz

My semester of Take Five was the most intellectually rewarding semester of college. Critical analysis of media has always been

fascinating to me and I have always believed that what we see in the media has a profound impact on how we see the world. I saw Take Five as the perfect opportunity to explore these beliefs. In my Take Five semester I set out to examine what role media has on gender roles in our country.

I was able to take a mixture of film classes, media classes as well as women's studies courses. Many of the media courses I took had a section devoted specifically to gender and one course focused solely on gender and race in film. This course taught me how to critically examine, not just passively observe, the images on screen and what they say about gender. The most interesting course that I took for Take Five though was "Feminism, Gender and Health." This course allowed me to challenge the way I define gender, therefore forcing me to be more critical of the ways it is presented in media. The most exciting part of this course was that I was able to write a research paper that fully embodied what my Take Five was about. In a paper entitled "For the Good of the County: Body Politics in *Alias*" I examined the different ways the female body was represented throughout the run of the series and how it effected the perception of femininity.

As I said before, the courses I took for my Take Five program were the most interesting and rewarding classes I have taken in my college career. I am so glad that I applied to this program and was given the opportunity to study something I am truly passionate about.

Business Ethics and Corporate Social Responsibility **Ryan Boulas**

Businesses invest a vast amount of resources to maximize sustainable growth, which has a large impact on society. Corporate Social Responsibility (CSR) is a way of self-regulation for businesses that concerns people, planet, and profit. Through my Take 5 scholarship, I set out to have a better understanding of Business Ethics and Corporate Social Responsibility.

I wanted a better understanding of how businesses utilize strategies centralized around CSR to better their corporations. Through my program I explored the ethical problems that businesses face and the effects these have on business solutions. I used business law and social policy courses to determine whether legal policies effect CSR positively or negatively. Legal policy is a huge factor in how Corporate Social Responsibility is implemented in the workforce. Laws and standards keeps corporations in check and in some cases hinder their ability to implement CSR effectively.

Throughout my program a recurring central theme was that the majority of businesses use CSR to some degree. In modern society it is the norm to use CSR to intertwine society, the Earth, and profits to not only keep the people happy, but to also have a thriving business. In the past CSR was not utilized to please society as it is today. By making sure the people's needs are met, businesses are able to maximize their profit through increasing customer satisfaction. These ideas have allowed me to gain a better understanding of how businesses operate and will help me implement strong ideas in the workforce.

The Effect of Myth and Religion in Shaping Cultural Identity in Early Societies

Andrew Cannon

Cultural identity is shaped in many different ways and history is a major contributing factor to this. An important part of this history is the tales and stories passed down from generation to generation. During my Take Five year at the University of Rochester, I set out to study the way in which history, more specifically myth and religion, affects how we perceive ourselves and others. Through the analysis of myths, tales, and sacred religious scriptures, I sought to see the way in which the ancients of the Greco-Roman world viewed themselves and others and how we can relate by having our own perceptions of ourselves and others in the present day.

Through my experience, I realized that my proposal was much more relevant than I had ever imagined. I learned facts about Judaism and Christianity that relate directly to mythology. Depending on your background you may even view these stories as simply myth and not actual fact. Each culture analyzes myths and fairytales through their own lens and make the characters and plots relevant to what they are witnessing and what they are struggling with in their own times. With these facts and more, it became clear to me that we are a nation shaped by our past, whether it be the tales of the Grimm Brothers from the 1800s or the scriptures from the 1st century that outline the most widely followed religion in the world, Christianity.

The European Union as an Evolving Political Structure in the Globalized World

Caitlin Cavanagh

For the past year, I have studied the European Union and how its function is changing and adapting as it becomes a political and economic force in the globalized world. Both through coursework and an internship in Europe, I have gained an intimate understanding the European Union as it currently exists as an institution. When I proposed my project 18 months ago, I knew little to nothing about the European Union. Even as my program began last year, my questions were so numerous that I wasn't sure which ones I'd be able to answer by the end of the program. As my program comes to a close, I am amazed at how much I've learned about world politics, especially the European Union. The European Union is developing into one of the most important social, economic, and political cooperative structures on the planet. I now fully understand how and why it formed at the time and in the way that it did, the nature of its present operation and goals, and the direction it is taking.

In the spring semester of 2010, I took *IR 106 Introduction to International Relations* and *PSC 256 Theories of Comparative Politics* at the University of Rochester. These courses provided me with a conceptual foundation in contemporary politics and international relations, as well as with an overview on the mechanisms of national and international political environment interactions.

In the fall semester of 2010, I interned in Brussels, Belgium, under an Italian member of the European Union Parliament through Rochester's Internships in Europe program. This unique opportunity allowed me to truly experience the day-to-day workings of the European Union in a way not possible in the classroom setting. The program included interning directly under a member of the European Parliament, as well as two classes related to European Union functioning and policies. I took a course in French to allow myself to better communicate in the daily language of the EU Parliament, and a course in the EU's security policy from Vesalius College to specify my focus on the European Union. The internship itself included attending committee meetings, drafting reports and researching for speeches, and even creating Powerpoint presentations, which were later presented to many high-profile international groups. My daily contact with the EU's officials, the many meetings I attended, and the research I performed provided me with an intimate and critical look at the inner workings of the institution and its members. This internship was truly the pinnacle of my program, and an invaluable learning experience.

Returning to Rochester in the spring of 2011, I continued my study of the French language. I also took *HIS England and Ireland since 1800* to delve into the sociopolitical evolution of the EU's most powerful member, Great Britain, and how the historical framework of this flagship nation led to the cooperative policies fundamental to the EU today.

My program has sparked in me a keen interest in international politics, which I intend to continue for the rest of my life. It has directed my career path as well, by instilling in me a dedication to improving social conditions for the global community through public policy. I am grateful to the Take Five program for facilitating the fulfillment of my academic goals through a personalized program of study.

Conservation and Alternative Energies: A U.S. Energy Policy Toward Sustainability?
Edward Chi

With current resource consumption practices and the ever-growing global population, there is no denying the significant anthropogenic effect we as a society have on the environment. With a fifth year at the University of Rochester, I planned to undertake an interdisciplinary program to explore how our nation's leaders are dealing with our environmental footprint. What is taken into account when leaders make policy dealing with our local/global energy resources and consequent environmental costs? How are our energy resources assessed? What technical and developmental considerations must be taken into account before investing in an energy resource?

From my studies, it was very evident from the beginning the idea of sustainability is very complex, drawing arguments from various fields and disciplines. Coming from a strictly science background, the evidence clearly demonstrates the extent of our impact; however, the social implications were fascinating to analyze. The "green" initiative has given new priority to conservation efforts and motivated new innovation, but more so it gave rise to a new fanaticism with "being green" upon which leaders in politics, science, and business employed for their own means. There are so many considerations and forces influencing how to effectively transition into an efficient economy/society, but we tend to forget to address the present needs and other social issues. One particular example of this green "obsession" is how innovation within the green energy market will bring the nation out of economic troubles and give the U.S. an advantage over other nations. However, the overall education system of the U.S. is consistently falling behind, which in turn U.S. citizens are incapable of attaining the technical jobs required for this new, innovative economy. Although the Green initiative and sustainability efforts focus chiefly on providing alternative energies to meet the ever-growing demand, this perspective is very limited in addressing society's needs. It requires a global perspective taking into account various issues (some we never thought

would be interconnected), but in turn, makes everything even more complicated/complex

American Sign Language and the History of the Deaf Community in America

Christine Cleaver

For me, my American Sign Language classes became a retreat from the courses of my Molecular Genetics major. This year I feel my signing skills have increased dramatically. But taking ASL classes turned into something more than just improving my signing. I gained self-confidence and I now have the ability to comfortably communicate with any member of the American Deaf Community. I have not only gained a strong language background, but I have a better understanding of their culture, their wants, and their needs.

Prior to this year as an ASL student, I was often nervous to speak up in some of my other classes. I soon overcame these nerves, after having to deliver a number of presentations and lectures in my sign language classes this year. Standing in front of a group of students and giving a presentation in a second language is terrifying. It is even worse to know that you are being graded and will receive critique and criticisms later. This really made me think about language minorities and how they struggle to communicate with others every day. I am currently completing an Independent Study on the establishment of the Deaf Community in America, with a focus on how pedagogical policy changes in both schools for the Deaf and mainstream schools have affected the Deaf Community and its language use.

Getting accepted into the Take 5 program was one of the greatest things that could have happened to me. It has truly been an enriching experience and I feel that learning sign language has informed all areas of my life.

The Economics of Environmental Sustainability
Brittany Crowley

For my Take Five program, I have been studying the Economics of Environmental Sustainability. This includes examining the economic implications of measures that are (and could be) taken to ensure our ecosystem's long-term wellbeing. Through the year, I have been researching modern science behind environmental technologies, economic methods to assess costs and benefits of such technologies and anthropological studies on how societies view and value their environmental communities.

I was first inspired to pursue this course of study by observing a growing emphasis on developing "environmentally sustainable" measures. I wanted to know more about what "green" technologies are available, as well as the economic contributions to environmental protection. Through my program, I am developing a much deeper understanding of the institutional context in which environmental decisions are made, as well as the cooperative strategic approaches to utilizing environmentally friendly technologies. I am looking closely at the costs and benefits of alternative energy sources, and finding that with many processes, the costs can be environmentally damaging as well as economically inefficient. Nonetheless, my research is leading me to see that there are certain measures that can be taken to mitigate environmental degradation in an efficient manner.

After spending four years studying English and Political Science, this program of study has been invaluable to me in broadening my academic horizons and teaching me a new way to look at important issues facing society. I am already much more knowledgeable about environmental technologies and the economics associated with their development. At the end of this semester, I will graduate with a confident outlook on these issues as a result of the information I have been fortunate to research through Take Five.

*Comparison of Textual and Socio-cultural Impact of Christianity and
Hinduism*
Debarshi Das

The goal of the Take 5 Scholars Program is to challenge viewpoints and present alternative perspectives that will enable students to reassess their own attitudes by looking at those of others. The program has given me the opportunity to examine the multifaceted components of Christianity and Hinduism by analyzing its textual and socio-cultural impact. By properly engaging my project, I have been able to obtain a fuller understanding of religion and its place in society.

In my Take 5 project, I explored religion, anthropology, history, and philosophy through coursework in an effort to understand the importance that religion has on the minds and actions of people. My study has shown me that religion has a pervasive influence on one's thoughts and activities, whether or not they recognize it. Religious symbols, concepts, values, and meanings create a context for one to discern and fully appreciate the world. In particular, the academic study of religion pushes one to think differently, abstractly, and creatively.

Christianity and Hinduism are two major vehicles that are used to seek answers. Specifically in my project, I intended to juxtapose evolving Christian belief and behavior in its historical context with the Hindu spiritual and mystical exploration of consciousness and purpose that lie at the core of Indian constructions of communal identity. I learned that the texts of the two religions differ tremendously in terms of style and content. Moreover, the rituals, myths, and other religious components have vastly different emphases, goals, meanings, and purposes. Nevertheless, each religion creates cultural systems that are ultimately integrative, stimulating, and ecstatic for both the individual and community. Christianity and Hinduism invite one to recognize that religious perspective can fundamentally shape one's thoughts, interests, and actions, which inevitably revolutionize who one is.

Architecture and Urban Design Christopher DiStasi

My study began from a simple sentiment, the further study of which I wished to pursue. Architecture and urban design influence human experience in profound and interesting ways. For the analytical work ahead of me, I first sought to ensure an adequate historical and theoretical background. *The Architecture of Frank Lloyd Wright* (AH 237) was the most solidly historical of my courses; and, though its title projects a highly specific topic, Professor Walsh expanded the course to include a great deal of contextual and comparative content. *Creating Architecture* (AH 114) and *The Politics of Space* (AH 320) together provided a new analytical vocabulary for the study of my subject; though both courses sought to analyze how humans interact with various spaces, the former course focused specifically on architecture—breaking down design into component parts and discussing collective works—while the latter course largely left its specific topics up to the student, seeking rather to review the major literature on spatial theory and offer students a new mode in which to approach a variety of topics. My final course, *Design in the Modern City* (AH 391), an independent study, was the most open-ended of my courses, and I consider it the culmination of my Take 5 project. Throughout the course, I produced several papers based on readings from major urban thinkers. In these papers, my goal was to discuss real urban spaces and projects, in Rochester and elsewhere, in light of my readings in urban theory and of the critical positions I had formed throughout my Take 5 project. Having reached the end of my project, I firmly believe that my best academic work has come out of this extra time at the University. Studying and writing on a subject henceforth unknown to me, I have been able to apply the theories and practices of my previous study in new ways and to supplement my previous notions with the valuable insights of a vast and underrepresented discipline.

In seeking to give initial form to my Take 5 vision, I found it necessary to first locate, out of the sum of University offerings, those professors and courses that might contribute to my topic. Though the Archaeology, Architecture and Engineering Program offered an ample

dose of inspiration, for my vision it served as little more than a starting place. At the heart of my project was study of the living present—a world of data to be collected and analyzed; a laboratory for the crafting of practical theory. What I ultimately discovered in my search—no catalog of urban studies courses—was professors in departments across the University with deep interests in urban topics. From the History, Political Science, and Art History departments in particular, I drew the courses that I wished to enroll in. Of course, my time was limited and professors did not plan to offer every course as I hoped. Nonetheless, after having enrolled in those courses that my time at the University allowed and having been thoroughly satisfied with the whole of my project, I have come to believe that the University of Rochester would do well to investigate the viability of an undergraduate urban studies program. I am confident not only in the quality and compatibility of the University's current urban studies offerings, but also in the extraordinary potential of such a program at this university and in this city. On the coattails of the University's new program in sustainability, an urban studies program would provide valuable opportunities for interaction with people and places in Rochester, investing in the city, by means of students, the intellectual resources of at least half a dozen departments. The ragtag collection of excellent urban studies resources present in the University leaves this school wanting of an appropriate academic program, which would unite and clarify each of its parts, ultimately elevating the University as a whole.

Development of Current Chinese Social Structure
Abaneh Ebangwese

My original goal was to explore the political and economic forces as well as the philosophical values that led to shaping China's current social structure. In order to accomplish this I was fortunate enough to be able to study abroad for a semester.

While in Beijing, I took courses that educated me on significant historical events, most of which occurred within the last century and a half and how the consequences of these events forced the transitioning of traditional Chinese society into the China we see today. Being

immersed in the culture had its benefits, seeing that I was able to interact with many Chinese people and ask their opinions regarding many social issues. I was able to pick up on trends that otherwise wouldn't have been noticed by a foreigner who couldn't speak the language or a tourist that would have only traveled to the famous tourist places. I was able to interact more fully and investigate these trends intimately because I studied the language extensively for a year before traveling there, and while there, continued to learn it. I explored places such as peasant factories to top venues which housed important political figures, bringing me in contact with some of the richest to some of the poorest people, and that alone opened my eyes to the conflicting attitudes and corruptions that strongly exist.

Returning to Rochester, I enrolled in courses that focused on Chinese philosophy, specifically Confucianism which still notably intertwines its beliefs within Chinese society even today. Furthermore learning about women's roles in society and the traditional oppressions and impositions that although aren't as strongly adhered to presently, still constrain many modern women. I will continue to conduct my own research and by the end of the semester compile a composition that fully embodies all that I have learned and come to understand about the forces that have shaped modern Chinese society.

Economic and Political Perspectives on Environmental Issues
Austen Erickson

My goal in applying for the Take 5 Scholars Program was to gain knowledge linking my scientific understanding of the workings of earth systems with a broader understanding of how human society impacts them.

Through my economics and political science coursework – introductory economics, microeconomics, environmental economics, game theory, and green markets – I was able to gain a basic appreciation of the way in which rational actors respond to incentives, with an emphasis on the environment. The way in which people value natural resources, and how they are likely to act under a particular

environmental policy can be analyzed using these tools. Such analysis gives a greater insight into both the intended and unintended consequences of possible solutions to environmental issues. In the words of my Take 5 advisor, “All environmental problems ARE economic problems.”

My other courses provided a rich, and oftentimes unexpected, context for environmental problems. 'Nature, landscape, and the environment' was an anthropology course examining how various cultures interact with the natural world around them. The art history course on representing the modern city gave perspective on how our conception of urban space effects and is effected by our view of what is natural versus artificial. Finally, my independent study has given me the opportunity to combine my newly accumulated knowledge in a study about recycling. I am reviewing a number of papers which examine it from ecological, scientific, and economic perspectives.

I am extremely satisfied with my Take 5 experience, and cannot imagine my University of Rochester experience being complete without it. I am both a stronger student, and a more informed citizen as a result of my coursework this past year, and will look back fondly on not only the courses I have taken, but also the people I have had the opportunity to learn from.

Rome Reborn: The Legacies of the Roman Republic and Mussolini's Fascist Regime in Italy

Jenna Furman

As an undergraduate, courses such as The Ancient City and Classical Mythology exposed me to the mythology, religion, history, literature, and culture of ancient Rome. Through these courses, I began to wonder about the present state of Italy, and how the legacy of Rome in ancient times was invoked later in Italy's history to give legitimacy to Mussolini's fascist regime, a “Rome Reborn.” How have these histories influenced its current culture, literature, politics, religion, and role in modern Europe? How does modern Italy, a country with such a diverse political and cultural past, fit in with the rest of Europe? Is Italy living in the shadow of its past or has it moved away from its classical and

totalitarian histories and formed a new, separate niche in the global community?

My junior year, I realized that I was interested in pursuing a fifth year to study ancient Rome and how Mussolini reintroduced the customs and traditions of the republic for his Fascist ambitions in Italy and how these historical legacies have impacted modern Italy. How did Mussolini persuade a country that he could reproduce the greatness of their imperial past? How did he thwart what the Roman Republic stood for and its ideals into a justification for Fascism? Additionally, are there obvious remnants of the Roman Republic and Fascist Italy in the everyday life of modern Italy or has its complex past had a more subtle influence on their modern culture?

Now, more than halfway into my Take Five year, I find that I am still curious about the answers to many of these questions. However, through a semester abroad in Italy and various courses involving Italian history, art, architecture, and politics, I have gained invaluable insight into Italy's past and present political and cultural environments. Italy is a country deeply-rooted in its past: customs and beliefs spanning hundreds of years are still practiced today and the ideal of Rome is still harkened to in the history, art and politics of modern Italy. Mussolini was able to lead a country into war on the basis of historical imperialism and past greatness; his efforts to create a "Rome Reborn" were overreaching and unsuccessful at best, but his ability to momentarily revitalize the Italian spirit and foster nationalism in a country so regionally-divided is essential to understanding Italy's position in Europe even today.

Thus, I leave my Take Five Scholar Year behind with a greater knowledge of Italian life—past and present.

Ancient Greece, Early Christianity, and the Modern World
Blair Germain

For my Take 5 Year, I explored the interaction of Ancient Greek societal values with those of Early Christianity, and how these two ways of thinking influence our world today. I learned that Christianity was originally viewed as a radical Jewish movement until it began to

increase in popularity in the 3rd and 4th centuries, and how Christians were perceived by pagans in the Greco-Roman world and vice-versa. I have also been considering how the conflicts present in the ancient world relate to present-day religious and philosophical tensions; one of the major things I have come to realize is that sometimes scholars will read modern phenomena into the history of the ancient world, when a closer look at the context of a given situation suggests that this is a misinterpretation of the original event. For example – I did not realize that followers of Jesus did not call themselves “Christian” until long after the death of Jesus (late first, early second centuries), and was of the opinion that Christianity began as a separate religion immediately after the death of Jesus. However, early followers of Jesus did not view their beliefs as a new religion, but rather conceptualized themselves as part of Judaism, which completely changes the context - and thus the meaning – of these early sources.

For my final project, I am looking at different translational biases in the Bible, and considering how the mere act of translation can change the meaning of various passages, and thus how this might have influenced the various beliefs among Christians in today’s world. I am hoping that this project will help me to understand why members of a common faith disagree on issues such as the role of women in the church and homosexuality.

Ultimately, my fifth year project has allowed me to confront and alter my own misconceptions about the course of Christian history, and to notice the influence - through literature, philosophy, theology, and conflict - of both Ancient Greek culture and early Christian history in today’s society.

Chinese Sign Language Comparison and Analysis
Lynna Gu

Before senior year, all I knew how to sign was “eat” and “tree” in American Sign Language. Yet now I can sign all that and more in ASL, LSF (French Sign Language), and CSL (Chinese Sign Language). I wanted to be able to connect my culture with something I have never

done before, so I decided to study Comparative CSL. CSL is a very little studied field and I learned a lot during this process.

The most rewarding experience in this Take Five was probably my field work in Beijing, China. I researched multiple Deaf Schools in Beijing and contacted them. However my efforts were mostly ignored: none of the schools replied to me. Once I got to China though, I contacted them once again and was able to get permission to observe at the Beijing No. 2 School for the Deaf. I talked to teachers, deaf and hearing, the principal, and the students. The students really enjoyed one conversation I had with one of the teachers comparing CSL and ASL. They mimicked all the signs I was exchanging, signing to one another and chattering away. The principal was able to give me a lot of information on school life and government aid. Many of the afternoon classes are craft and art oriented, so the students will be able to gain some skills that they can take and use to support themselves in the future. Also the school seems to focus on oral education, not sign. Sign seems to be the last resort that the teachers use to communicate. All the main classes are taught by teachers orally with very little sign. They try to focus on the students learning to speak and all the students wear hearing aids. The No. 2 school is a preschool to middle school deaf school. There is also a high school and a college level school in Beijing. All of them get government aid. The government funds annual check-ups, hearing aids and boarding fees. Many of the students need that because most are boarding students since they are from outside the main city. However all this covers very little of the deaf population in China. More development and political focus will be needed if the deaf are to get to where deaf Americans are today.

The true purpose of my Take Five was the study of structure of CSL. Academically, I have had little luck in finding previous research. Many of the books I bought in China are just a dictionary of signs. Nothing is really said about the grammar and history of the language. However from all that I had gleaned, CSL is still very much a young sign language. It has a standard syntax but no set morphology or grammar. The government is trying to standardize it, but the grammar is based on Mandarin (spoken). Most government movements in trying to

impose rules of grammar have been a failure. In CSL, there is already a set phonology and syntax. I have not yet finished my research, but in my preliminary analysis there have been many eye-popping differences. The most basic is that the alphabet is different since the Chinese alphabet is different. There are 30 signs in the alphabet and 19 of those are different from ASL. Plus there is an addition of “zh”, “ch”, “sh”, and “ng”. Also many signs are iconic of written Chinese. Like Zhong1 (middle) 中, looks exactly like how it is written with use of both hands. I would like to be able to study the grammar a little more, but there seems to be no difference in sign and spoken Chinese. Yet, I am not sure if that is because my data is incomplete or government control.

Economics and Public Policy **Brendan Guercio**

Through my Take Five program in Economics and Public Policy, I set out to understand the economic theory underlying various policies implemented by governmental entities. As a Health and Society minor, I had already developed a keen interest in health care policy and reform, and I had always felt a general concern for political events. Yet I was frequently frustrated by my ignorance regarding economic principles; so often, I would turn on CNN and watch policy experts debate the economic virtues of a given policy without the slightest clue about which argument was most sound. Through my fifth year of study, I was determined to resolve these frustrations. Through my coursework in economics and political science, I learned the fundamental theories of opportunity costs, consumer choice and the firm, externalities, public goods, and much more. I also gained great insights into the workings of our political system; I became intimately familiar with concepts like rent seeking, regulatory capture, and the median voter model.

My studies granted me a historical and theoretical appreciation for the wonders of the free market, a short-hand term for the remarkable human tendency to execute self-interested and mutually beneficial trade that inadvertently gives rise to an extended order of cooperation characterized by decentralization and unimaginable complexity. My studies also explored conditions that may cause such a remarkable

system to produce sub-optimal outcomes, or market failures, and how various policies can theoretically improve social welfare. Most importantly, I studied the many failures and limitations of government itself, a humbling topic that I failed to appreciate prior to my studies as a Take Five scholar. As a result, I became acutely aware of the fact that most poverty and conflict in our world is a direct result of bad politics, inefficient or corrupt government, and poor social institutions, not market failures. I genuinely believe that these problems will be the most pressing and challenging issues for my generation to grapple with as we enter the 21st century. My Take Five studies culminated in an independent study in behavioral economics, a nascent field aimed to unite the disciplines of economics, psychology, and biology. Through these studies, I learned more than I could have hoped for. Not only have I acquired the knowledge and analytical tools necessary to understand the economic costs and benefits of various policy proposals; I have revolutionized my perspective on human behavior, the nature of government, and the workings of civil society. With these new paradigms, I am better prepared to live my life as an informed and thoughtful citizen and to understand the ever-unfolding world around us.

African Music
Sagie Henig

With my Take Five program, entitled African Music, I set out to learn about African music and culture in order to gain a deeper understanding of jazz and other African-American musics. Having studied jazz performance privately for many years, I have developed an interest in tracing the music back to its roots. My Take Five curriculum allowed me to do so. Specifically, I took courses at the University of Ghana in West Africa with focuses on Ghanaian drum music and on musical cultures around the African continent. I also participated in a traditional drum and dance ensemble outside of the University.

Immersing myself in African music and culture for a semester was among the most valuable experiences of my life, both musically and personally. More important than the music itself was the way in which I learned it. Understanding the way musical traditions are taught provided insight into their cultural significance. To be a part of this social process

of passing on musical traditions from master to the student was not only deeply meaningful and rewarding, but also gave me a unique understanding of and appreciation for the evolution of jazz traditions.

The Human Factor: The Environment and the Effect We Have On It
Dana Hilfinger

When I began my Take 5 program last year, I had an abstract in my mind, two paragraphs similar to what I'm writing now, for what I believed the year would be – an idea that the scope of environmental issues was relatively narrow (or at least straight-forward) and could be confined into easily defined disciplines like environmental anthropology, ecology and environmental politics. Over the course of the last year, however, this idea of environmental conservation and human impact on the world has morphed completely. Not only is a topic like environmental conservation or sustainability infinitely more complicated than simply planting trees or building solar panels on residential homes, I've found these terms in isolation are also inadequate in truly addressing the issues I originally perceived so important.

These two years of taking environmentally themed courses has made me realized that boundaries are not definite – politics are rarely just political, environmental issues rarely are not social ones as well. World issues, much like the emphasis of the Take 5 program, are an exercise in multidisciplinary study. And through this program, I hope to use this understanding to not just address environmental issues, but also the accompanying social and political problems as well.

The Intricate Puzzle of the Mind
Nicholas Huang

When I first applied to the Take Five program three years ago, I sought to learn about the mind and the brain in as many ways as I could. I was interested in finding out how we remember and how we learn, how we perceive and how we think. I wanted to learn how our mind develops, and the less concrete question of what it even means to have a mind. Some unforeseen course changes put me into a position to learn about the mind from a neurobiologist's perspective as well.

I have found that science has made great strides in understanding how the brain works, at a variety of different scales. We know how individual neurons network and communicate with each other, both during development and later in life. We have studied many systems of the brain, such as the visual and auditory systems, and we can describe where each system is located and model how they process information. We have also been able to observe and then predict the behavior of whole organisms. These categories are not mutually exclusive, of course; for instance, learned behaviors can be explained through rules of plasticity on a synaptic level. Through my Take Five courses, I have learned a great deal about all of these subjects.

While my studies in cognitive science have shown me what we know about the mind, my coursework in philosophy has highlighted questions about which we do not have clear answers, questions such as the origin of consciousness, and whether we should identify mental states as being specific neural states or should consider more functional roles instead. Unlike the scientific problems, these are subjective questions, and we have little hope of reaching objective and unanimous answers. Through these courses, though, I have definitely learned to think about the mind in a completely new way, and I now consider questions that I never had before.

Emotional Development and Gender Differences in Social Interaction

Vaibhav ‘V’ Kakkad

My motivation to pursue the Take Five program came from my deep-seated curiosity about the inner workings of social interactions and the structured networks that consequently arise. Although there are various measures and metrics with which academics over the years have measured the quality of social interactions I wanted to focus on the relatively less quantifiable aspect of emotional development. The questions I set out to answer revolved around the seemingly simplistic notions of pinpointing the feelings that are generated by “good” interactions, understanding the motivations that make us pursue them

against difficult odds and the kinds of spontaneous network structures that evolve when a large number of interdependent players attempt to follow these favorable interactions. Additionally, I was also interested in exploring gender differences in these social interaction patterns.

I began my coursework with basic courses in social psychology and sociology. These courses helped introduce me to the tools that were conventionally used to analyze interactions. I learnt about the origins of macro-sociological phenomena like religious cults as well as micro-sociological interactions of isolated friendship circles. It was during the study of friendship circles where I was introduced to the Attachment theory.

This theory aims to model all interactions in the context of a mother-child interaction or a care-giver/receiver interaction. It is the guiding principle to the work of my Take Five advisor, Professor Thomas Smith, who works on developing neurosociological models of social interactions where he connects the dots between neurotransmitter function and synchrony in social interactions. His work also spans into using these notions to understand the world of entrepreneurship. During my yearlong venture, I was lucky enough to take quite a few courses with him as well as an independent study and have developed a great appreciation for mathematical modeling in sociology. Apart from that I was also blown away by courses like *Relationship processes and emotions* and *psychology of gender*, both of which completely changed my perspective on day-to-day interactions that we so take for granted.

Equipped with these ideas I am now able to see a multitude of patterns in interactions all around me; it may be within the family, on the bus or at the bar. Take Five has been much more than just a short stint to fulfill my curiosity, it has been an enlightening experience; one that I will take much away from to apply in my own life.

Democratization in Latin America

Meredith Keller

I designed my Take Five program after spending a semester in Buenos Aires, Argentina, where through my home stay, and my daily immersion in the city, I experienced the political culture first-hand. Through my Comparative Literature and Spanish courses for my major, I had a lot of exposure to Latin American culture. Literature courses inevitably touch on the historical events of the time and place in which they were written. I wanted to gain a deeper understanding of the region I came to appreciate so much for its language and culture, to be more acquainted with the history from the disciplines of economics and political science. Seeing the various places in Argentina that lacked in development, I became very interested in one of the major puzzles discussed in economic development studies: why does Latin America lag behind in its economic growth and development compared to the U.S., when it has such a great deal of potential? I felt that there were complex social, political, and economic reasons behind the answer to this question. I also wanted to see how the role of democratic forms of government affected the economic successes or failures. Many people in the U.S. and the West assume that democracy is the best form of government for yielding strong economic growth from a free-market model. Many Latin American countries have become test labs for different forms of government because of their long-lasting political instability, and have struggled to establish legitimacy in many of their political institutions. I wanted to also try to have a better understanding of whether democracy actually affects economic growth positively, and to look at the connections or patterns between implementations of democratic forms of government (in both successes and failures) and the patterns of economic growth over time.

When I compare the courses I ended up taking for my program with the courses I originally proposed, the changes were fairly significant. While I was missing some of the Latin America-focused political science courses I had originally planned on taking, and I initially was worried this would mean I wouldn't gain the specialized knowledge I was seeking, the political science courses I was able to take

exposed me to the theories and the ways of thinking that were applicable. I was able to focus on Latin America through my independent study coursework, and a Latin American non-fiction course. The diversity in departments for my courses created a very rich perspective. Anthropology and Economics couldn't be more different in terms of their values and perspectives. Having exposure to these departments for the first time, and doing so within the same academic year, while focusing on the issues of development in Latin American countries, made for an incredibly enriching experience.

Aside from the raw content and information I acquired from taking these courses, many of them also pushed me to think in new ways. This outcome was not something I had directly anticipated, but it has become just as rewarding as acquiring the information that I hoped to gain. Indeed, the best information is interlaced with insight and must be acquired through a process of critical thinking. My Take Five has caused me to appreciate this even more than I did before. In addition to having university quality instruction with incredible professors to better understand the political, economic and social issues behind development in Latin America, I also am coming away with a new set of analytical skills. I am incredibly grateful to have had this opportunity.

Essential Formation
Owen Laurion

Titles function as preface - an introduction of sorts - to the work itself and will either help the audience understand the artist or will simply thicken the cloud of misapprehension surrounding an artwork. When a piece is displayed in a gallery or some other venue, the artwork never stands alone, but usually with an accompanying card stating various information such as the artist's name, the medium, and of course a title. However, even if the artist desires his or her piece remain nameless, they must explicitly title their work "Untitled" negating their intent to offer an artwork sans introduction. This relates specifically to my experience of college education because one must continually name, identify, and title oneself and one's learning in order to gain access to the legitimate-making processes of academia. Majors are pursued,

minors finished, and theses stated, and all along the way, those titles will be the guiding force behind one's education. Academia is a structure for discipline, and discipline effectively molds the individual instead of allowing a space for an individual to mold oneself. The university system basically offers a structure by which students choose how they want to be structured. Take Five, I believe, offers something which tries to mediate this seemingly detractive relationship, and though my own experience with Take Five has seen its fair share of failures and let-downs, it has remained a process solely dependent upon my own action and behavior.

I originally set out to study the space where art practice and art theory meet, designing a Take Five program with a heavy focus on ceramics with accompanying course work which would provide the backbone to the art work. Though the timing changed, and where I would come to study is entirely different, I have somehow found my way over three years into a ceramic and sculpture program while taking extremely stimulating courses on the function and space of art making, critique, and theory. I have spent my final year in an independent study at RIT's Ceramics department while supplementing my projects with UR's own Studio Art Department. I have also been able to participate in several courses offered by the Visual and Cultural Studies program which have been especially influential. The biggest change in my Take Five program has not been to its content, but rather in its importance.

When I started, it was a supplement to my intellectual growth – an addition to my studies in Anthropology and Philosophy. However, I have begun to interpret this relationship differently. I think that artwork can't be considered a mere supplement, mere academic ornamentation, but instead the work of art provides a critical mode of expression otherwise lacking in academia. My Take Five project has fluctuated greatly over the past three years, but I have consistently been trying to find, and perhaps this is the essence of my project, a space where form and content are in harmony. My art-work remains critically influenced by studies in art-theory, philosophy, and anthropology, and the Take Five program has provided me with a fundamental experience of how to take one's inquiry beyond discipline and beyond mere academic

structures. Learning is a continual and cyclical process neither bound to place nor space, and Take Five, I believe, has the potential to stimulate students to take on that challenge and learn how to learn. My Take Five project has ultimately worked because I have been able to continually re-evaluate and re-structure my program to reflect the non-linear and ever-changing characteristics of both inquiry and practice.

The Evolution of Japan: Under the Influence of Eastern and Western Culture

Siming Li

As a transfer student, my time at the University of Rochester is always limited. However, the Take Five Scholar Program gave me an opportunity to put what I was interested in, but due to my tight schedule I nearly dare not to consider, into my study plan.

The goal of my Take Five project is to study the evolution of Japanese society and culture under the influence of different cultures. I included courses such as Japanese language, history, culture and international relations. It involves a large range of topics to make a comprehensive study of a nation and its people and the first and the most among these topics must be language. My language courses not only allowed me to manage Japanese language, by using the language skills I learnt in class and practicing them in my daily life. I also made a lot of Japanese friends and was able to understand many cultural phenomena which are nearly impossible explained by any other languages.

A very important part of my project is one semester of studying abroad. I went to Meiji Gakuin University in Tokyo, Japan in the spring semester of 2010. This semester is the most exciting part of my Take Five project or even of my entire college life. Meiji Gakuin University takes the student exchange program very seriously. Each ISP (international students program) student is assigned two buddies who are native Japanese students. They will take care of ISP students during the whole program and they are really nice and always helpful. Thanks to them, I not only improved my oral Japanese very quickly but also got

fully involved into many activities and events such as the Cherry Blossom view, traditional handicraft study and so on.

From my study at the University of Rochester and the study abroad semester, I've noticed that both traditional Eastern culture and modern Western culture are well functional in Japanese society in a great harmony. However, Japanese traditional culture seems to be waning. Compared with the young generation, foreigners may be more interested in Japanese traditional culture. Fortunately, Japanese government and local organizations are doing a lot of work to protect their culture and make it suitable to be learnt, practiced and passed in modern time.

In all, I really enjoyed my Take Five year. Many thanks to the University of Rochester and the Take Five Scholars Program!

Finding Meaning in Life
Krista Lombardo

For perhaps the entire history of human life on Earth, life's purpose has been contemplated. As the question "What is the meaning of life?" has gone unanswered for all of these years, I did not actually expect to find an answer to it in just one year of study, but this question is what I set out to answer nonetheless. A physics and astronomy major, I had already spent four years looking at how, physically, our world has developed, so the goal of my Take Five program was to look at *why*, from the perspective of religion, philosophy and anthropology.

As I embarked on my year of study, my program evolved. It became less important to find what the universal meaning of life is and more important to study how we create meaning in our individual lives. Of course, there are many answers to this question. But through a combination of classes such as Rel 111: Philosophy of Religion, Ant 203: Ritual, Myth and Scripture, and Phl 227: The Meaning of Life, as well as an independent study on atheism, I feel confident that I have approached my theme from several diverse angles and have, ultimately, made myself more aware of the value and meaning in my own life, and I couldn't have asked for more.

Emergence of Psycho-Biological Synchronicity in Electrical Systems

Joni Mici

For my Take 5 thesis, I developed a predictive model of electoral systems based on the role that innate biological processes play in human interactions.

When described mathematically, biological processes can be modeled as oscillators, or systems which have a repetitive variation between two or more different states. Originally developed for systems in which two oscillators were coupled, oscillator models have since been used to explain behaviors ranging from the synchronous firing of fireflies to the dynamics of mother-infant interactions. This wide range of applications shows that the tendency to synchronize is one of the most pervasive drives in the universe. My initial model utilized predator-prey mathematical models to describe the neurobiological oscillations in a 2+ player group behavior.

My model described the emergence of synchronicity among parameters such as unity versus disunity, consensus versus dissensus, shifting of allegiances. Input parameters of the model used several psycho-biological variables, such as anxiety and distress, while outcome variables included group cohesion-fragmentation and comfort. Based on mechanical vibrations theory, my model predicted stability well. However, I ran into difficulties attempting to isolate interdependent parameters from one another. Parameters such as social maturity often did not have direct analogues to vibration mathematics and had to be accounted for after the governing differential equations of the model had been solved.

Ultimately the model I developed, as well as the courses I studied, have given me the ability to see social interactions in a broader and holistic mindset. Given more time, I would refine the model to better fit traditional sociological parameters.

Possible Connections Between Science and Spirituality

Noelle Miller

Upon entering the Take Five program, I held no expectations about the final results. I kept my mind open to the possibility of connections between science and spirituality, including the possibility of no connection at all. After all, what I have been seeking is something that numerous philosophers and scholars have spent years trying to find. This debate has been the spark of conflict in both the past and present, and it is one that will likely never end. So, of course, I wanted to dig deeper and see what the fuss was all about.

After taking my first philosophy course, Science and Reason, I was introduced not only to a new way of thinking and formulating arguments but also to a discourse that I was not aware existed. It was in this course that I found myself in a setting where we discussed the justification of science and its methods. Ignorantly, I assumed that the general populous did not seriously question science. Sure, one could speculate about the validity of one experiment over another, but in general, I feel like science is so highly revered, we expect it to do no wrong. Yet, I found myself in a class raising the same skepticism with science that is normally raised with religion and spirituality. I wondered, then, if delving into the essence of science and spirituality would result in some similarities or if it would result in no relationship at all.

I gained a greater perspective on the topic after taking all of my program courses, but two are most memorable: “Theories of Religion” and “Darwin and Religion.” In the former course, I was exposed to the numerous ways that religion and spirituality manifest. In the latter, I learned about the stronghold that one particular religion had on society—a time when faith was highly revered and expected to answer all of life's questions, from the environmental to the monumental. Though science and religion have switched roles, I have a firmer grasp on what it is about the two that allows science to settle neatly on its pedestal as the latter is thrown demands of proof, demands of truth.

As I wrap up this last semester, I find it all too fitting that my final program course is “The Meaning of Life,” which incorporates many of the arguments and opinions that I studied and debated in previous program courses. Just as I do not expect to end the class having confidently and concretely discovered the meaning of life, I do not expect to graduate with a solid confirmation of whether science and spirituality intertwine. At best, I can formulate educated opinions—which is what, I expect, the philosophers and scholars before me have done. However, having been given the opportunity to study the topic for the past two years, I can finally feel comfortable expressing my opinions as, indeed, educated opinions.

Economic Growth and Global Development
Trevor Miller

My fifth year was meant to elucidate the complex story of economic growth and global development in order to better understand the perseverance of socio-economic and political differences between developed and developing world societies. It was pursued with the additional purpose of intellectually contextualizing previous and future experiences abroad.

I learned that growth and development in the least developed countries (LDC) are stunted by a collection of factors that together misalign the average LDC’s citizen’s incentives to invest and save as well as discourage foreign investment. This collection is a recipe for weak and unreliable economic growth. These factors include corrupt political institutions resulting in insecure property rights, the prevalence of civil and ethnic war destabilizing investment markets, and the high costs of transaction within technically undeveloped and low education communities. Thus, a reasonable LDC citizen will spend now due to the risk of losing what was earned later and foreign investors will forego business opportunities due to similar risk facing their potential investments.

Reflections on my previous experiences as a UNICEF Kenya volunteer have been given new meaning in wake of this year’s study. I

hope to carry the lessons learned forward into future trips abroad, including an upcoming trip to China as a member of the International Laureate's Delegation on Medicine.

The Impact of Culture and Religion in Southeast Asia
Shafayat Moin

In my Take 5 program, I explored the impact of religion and culture in Southeast Asia. My goals when I began my studies were to fill what I felt were significant gaps in my education. I expected this education to give me the necessary tools with which to engage our current world, and my intellectual curiosity was neither sated nor fulfilled through my History and Biology majors. I set out to flesh out the worlds I studied in my history courses with important religious and anthropological sub-contexts that I felt were necessary in completing a thorough education.

This journey began with a tentative study of introductory religions in the South Asian subcontinent and ended with what I can safely say was the greatest mental and spiritual engagement of the universe and its contents. Texts such as the *Bhagavagita*, the *Upanishads*, the *Analects of Confucius* and the *Tao te Ching* presented different views on existence that invoked strong, contemplative discussions through contradictions and fascinating paradoxes. By examining these texts side by side, one can see that the Asian world, from ancient times to present day, is connected at a mythological and spiritual level. Current events highlight this connection, where elements of ancient myths such as the restoration of Amaterasu by various kami spirits in order to rebuild a world engulfed in darkness can be similarly seen in the resilient response by the Japanese people to the aftermath of the 2011 tsunami. Along this line of thought, the pride the Chinese have in their own identity as the ones chosen to live in the Middle Kingdom can be seen in recent conflicts between the Chinese government and the people involving key issues such as censorship and ownership. This examination resulted in a mental grapple with concepts regarding my life and the world I live in that I would otherwise have never considered.

Notwithstanding a few regrets, such as missing out on Theories of Religion, I believe that my Take 5 program has satisfactorily fulfilled my expectations and desires. I have a stronger grasp of Asian cultures and moreover, I now have the necessary handle on various Asian religions in order to relate to their lifestyles and beliefs. This has expanded my own horizons regarding my life and has given me the tools with which to engage the world at a level where I can better understand various cultural phenomena and trends.

Comparative Musicology: How Music Truly Affects Society and Culture

Matthew Myers

The essence of why I quickly decided to embrace the Take Five opportunity can be found in a quotation from Plato: “If you want to measure the spiritual depth of society, make sure to mark its music.” Music reflects and creates social conditions, including the factors that either facilitate or impede social change. The development of recording techniques in the latter half of the 20th century has revolutionized the extent to which most people have access to music. All varieties of music are available to most people, at any hour, at the touch of a switch. The down side of this easy availability of music in the Western world is that there is a tendency for it to be taken for granted. As a Take 5 scholar, I yearn to analyze differences among varied societies in order to understand the importance of the role that music plays in them more clearly. My greater understanding of financial economics and international relations made me realize the true benefits of music education worldwide, yet such investment in music always comes under attack in times of fiscal constraint, particularly affecting national groups throughout the Third World. The broad lens of this project has indeed been music’s impact on societies, but as I commenced researching, the relationship of music and medicine in various cultural contexts truly engaged me and gradually became the focus. Taking advantage of Take 5 and the numerous independent studies I was able to create, I authored a comparative analysis thesis spanning two semesters: in the fall emphasizing Western Africa followed by a North American and Western European concentration in the spring.

At numerous times and in various cultures over the past two millennia - and probably still further back in time - music has exhibited a strong relationship with medicine or healing. Performing and listening to music has been thought to achieve something more than entertainment; something often related to enhanced spiritual awareness or beneficially outlasting the performance that maintains or restores the health of mind, and even body. With such ideas, questions obviously arise that I strive to address: initially, what is to count as music, what as medicine? How exactly has this therapeutic power of music been conceptualized and explained? How do people use music to heal themselves or others, and how do such practices change through time and space? Are the healing powers of music universal, or culturally specific? How important has music therapy been within the broad medical and musical culture of any given place and time: central or marginal, occasional or enduring? There is something about music's effects on people which arouses interest far beyond the confines of any sole profession, and is increasing appeal to a broader public. I feel that the central part such activities play in people's lives, and the benefits that they bring, should be more widely recognized and analyzed.

Rather than investigate the science supporting music therapy and the specific practices or techniques employed, I wanted to study other perspectives, though I quickly realized that comparatively little on this area has been produced by scholars engaged in social, cultural and historical studies. Surprisingly, even less has been published regarding music and healing in Western Africa. Throughout that region, the term 'therapy' is often used to denote the therapeutic effect which can be gained from being involved in any form of musical/artistic performance. The critical difference between this kind of activity and the science of 'Western' music therapy is that it does not require the intervention of a trained therapist, and is chiefly a form of recreation. In cultures other than North America or Europe, musical 'healing' is a frequently used term, which reflects a bias towards thinking of music as a form of healing (i.e. making strong, whole again) rather than just in terms of therapy (i.e. techniques of intervention involving distinct goals and outcomes). It was rather interesting to explore the changing relationship

between these two domains, and how it closely parallels the relationship between African and Western societies.

My Take Five year not only increased my musical knowledge of disparate cultures (thereby enlarging my understanding of other cultural facets), but also allowed me to research and discuss music with foremost historians and ethnomusicologists at the UR. The music and anthropology classes I selected, as well as the independent studies I created, were engaging and fascinating. Having an entire year free of stress concerning graduation or major requirements was excellent, and I have gained an immeasurable amount of knowledge on a subject I am passionate about: a feat otherwise not accomplished without the gift of Take Five.

Defining Sustainable Development **Avery Naar**

While the goal was never to arrive at a clear-cut definition of sustainable development, my Take Five Program has led to defining experiences that shape my knowledge of the subject.

“Never give up; never surrender.” A once less than extraordinary quote from the movie *Galaxy Quest*, this phrase has become the keystone to my success. My study of sustainable development presented challenges which have been equally rooted in the struggle to balance environment, economy, and earth as in the struggle to learn efficiently, engagingly, and to always maintain some degree of focus. With each course I entered came a new set of theories and ways in which to discuss the topic, but ultimately the same challenges and commanding obstacles resurfaced. Property rights issues, poverty, lack of education, lack of well-crafted environmental policy, the tragedy of the commons, none of these have simple solutions. Rather they are all problems requiring ongoing discussion, trial and error, patience, and perseverance.

Thus I have learned through my Take Five that as an ever changing, ever growing field of study, sustainable development must be investigated accordingly. It must be viewed through a lens which

captures the ecological, economic, political, social, technological, and cultural elements of which it is comprised, *and* honors their subsequent interaction. The dynamic nature of the beast makes it particularly difficult to tame. However, it is possible and advantageous to isolate individual systems on our globe in order to simplify the evaluation process.

On a systemic level, it becomes much more realistic to extract, consolidate, process, and contextualize the most significant factors contributing to the whole of sustainability, providing specific case definitions and tangible data. Whether it is an individual building, neighborhood, or city, looking at how the individual parts of a system interact and affect the output often leads to more efficient design and innovation. It is an exciting time for entrepreneurs, grassroots efforts, urban developers, and young adults around the world who have an interest in attacking our world's latest environmental challenges. I have benefited greatly from my interdisciplinary approach to defining sustainable development and hope to continue the conversation and spark further efforts from those around me in the future.

Human Interpretations and Responses Through Theatre
Jacqueline O'Donnell

Theatrical performances have inspired me in countless ways throughout my life, but prior to my experience in the Take Five program I had never studied it in any official capacity. For me, the most fascinating aspect of theatre is the way that a script translates to the stage, the way that an actor can bring written pages to life. An author's words alone can be interpreted differently by any reader, so a performer must build his character based on how he wants the audience to feel as he delivers his lines. This is precisely what I planned to investigate during my Take Five year. I took both acting classes and courses that concentrated on written plays in order to study the relationship between the actor and the text. I wanted to understand how this relationship – spurred by a given interpretation of the text – has evoked such powerful emotional reactions in audiences since the birth of dramatic performances. Fortunately, my fifth year has been extremely valuable to

me, and I have not only analyzed theatre intellectually, but also experienced it on a very personal level.

I ended up taking most, but not all, of the courses I set out to take in my proposal. In my last two years at Rochester I got to read thirteen Shakespeare plays, explore the countless forms of African-American drama, and have classics like *The Odyssey* and *The Oresteia* brought to life by Professor Peck; these classes really opened my eyes to the diversity of theatre in its textual form. While I expected to learn a lot from the academic classes I took, I was pleasantly surprised at how involved I became in the theatre program here at Rochester. I performed in *Brief Interviews with Hideous Men* directed by Daniel Fish, and encountered firsthand how theatre does not require scripts, characters, or even acting. This semester I am an actor and choreographer for *The Winter's Tale*, and I also got into the audition class Musical Theatre Workshop. All of these experiences with performing have challenged me in ways I have never been challenged before. I never realized how much work and practice goes into performing, but I never cease to be fascinated by the process of building a character. The crux of my Take Five proposal, the idea that any text can be interpreted and felt differently by different actors and audiences, revealed itself to me in a single exercise in my Musical Theatre class, wherein I had to sing a common love song while acting like I was about to commit suicide. There are infinite ways to use words as an actor, and applying subtext to the words is often far more important than the words themselves. I am so grateful for the Take Five program and all the opportunities it has given me. Had I graduated in 2010, I never would have begun to explore the theatre and acting, and while I have only brushed the surface of these arts, I would not trade this past year for anything.

Social Progression in 19th Century Literature **Miriam Oddie**

My intention for this project was to explore the political, cultural, and literary forces that drove social progression in Europe and America during the nineteenth century. At the beginning of the century both continents relied heavily upon an antiquated system of social hierarchy;

at its end, this was generally considered to be unacceptable. In addition to this, slavery was outlawed on both continents, and all black men had voting rights by law. Women were already organizing powerful movements for suffrage, and achieved suffrage in England and America by 1920. Successful artists are always highly influenced by the political and social change around them, and I wanted to discover how the political changes of the nineteenth century were reflected in the art and literature of the time period. I was especially curious about the rising role of female authors such as Jane Austen and Elizabeth Gaskell, and whether the unforgettable female heroines that they created had an impact on the way in which women were perceived, and the suffrage movement. Vibrant and powerful feminine heroines pervade nineteenth-century literature, and so does an emphasis on the multiple discrepancies of the arbitrary system of social hierarchy; this only increased throughout the century from the work of Austen to Charles Dickens to George Eliot. Clearly this literature assimilated the social climate of its time; this project is an exploration of whether it also had a part in directly influencing the profound social and political changes occurring in nineteenth-century America and England.

One of my main intentions in incorporating history courses into my Take 5 proposal was to gain an even clearer picture of the social and political climate in the nineteenth-century, which is very possibly the most progressive century in human knowledge. I found that the French Revolution and the Irish rebellions of the 1790's had both drawn intense attention to issues of social hierarchy and questions of imperial power; this led to the development of social progress, made popular by social evolutionists such as August Comte. This interest in social climate was the groundwork for the labor laws of the 1830s, and also led to the abolition of slavery in 1837. This interest in relations between social classes was further explored by the social theorists Thomas Carlyle and John Stuart Mill. Because of the effect of these articles on English society, these articles spread to America relatively quickly. Abolitionist and Suffrage movements in nineteenth-century England directly impacted those of America.

My main goal in my English classes this year was to gain a comprehensive view of how the role of the feminine heroine and also the role of social class increased in nineteenth-century literature. The rise of the feminine heroine happened surprisingly quickly - it began with authors such as Frances Burney and Maria Edgeworth, but as admirable as these authors are, their heroines arguably rely upon men to define them. It is not until the work of Jane Austen that one sees faulted but powerful heroines such as Elizabeth Bennet and Emma Woodhouse, who have an identity outside the context of the men in their lives. However, many have criticized Austen for not incorporating heroines from lower social classes into her novels; most of them come from fairly affluent situations. Austen revealed the social tensions of her time, but did not answer them; later in the century, Charles Dickens more explicitly critiqued the poorhouses, madhouses, and systems of law in England, and had a more active influence on social time. This focus on the discrepancy in social hierarchy continued through the work of George Eliot and Elizabeth Gaskell. Eliot is an interesting case because she was a female author who felt obligated to write under a male pseudonym. Although the role of the female author had clearly increased throughout the nineteenth-century, it is interesting that she still felt the necessity of this; it was clearly not a respectable profession for a woman yet. The work of Elizabeth Gaskell reveals how much the concept of the feminine heroine progressed throughout the nineteenth-century; while Austen contented herself with writing about affluent, prosperous young women, Gaskell chose to make women from lower social classes the center of her novels. I consistently found throughout this year that not only did literature of nineteenth-century America and England reflect the social progression developing around it, but also influenced it both through social criticism and novels; the literature and social progression of the time were in a symbiotic relationship.

Bridging the Gap: Visual Perception and Art Cognition

Brad Orego

One of the most fascinating aspects of our everyday life is the prevalence of our visual world, and the level of processing that goes on to make sense of our inputs. We each have approximately the same equipment (physiologically speaking) when it comes to vision.

However, we all have different reactions to and interpretations of all works of art. Whether a museum curator, master artist, first-time art student, or never stepped foot into a museum, every person has his or her own perception of a work of art, despite having the same perceptive capabilities.

The study of art is essentially a study of our visual system – artists learn how to reverse-engineer optics and manipulate the ways the visual system interprets what our eyes see in order to create various effects (such as a 3D image on a 2D plane). Having studied the same problem (vision) from various backgrounds (art, art history, and BCS) has provided a unique and interesting view on the topic. Neurons and brush strokes aside, it seems the two disciplines have the same basic understanding of how our brains work – the main difference is top-down knowledge versus bottom-up. An artist can tell you what to do to an image to make an illusion appear, and how they work, whereas a visual scientist can tell you what your brain is doing in order to make the illusion appear.

It may not be the be-all, end-all of Art Cognition, and it's certainly not going to answer the question “why do we all have our own interpretation to a piece of art?” (which would take a depth of knowledge in Psychology further than humans currently have), but having the understanding from both sides of the visual studies creates a broad understanding and deep appreciation of how we see things in everyday life.

Exploring Cultural Expression Through Film Production **Di Pan**

My Take Five program is called ‘Exploring Cultural Expressions through Film Production.’ As the title suggests, my studies focus on analyzing and producing films of different cultures and genres. Throughout the program, I’ve learned how to write full-length, three act screenplays and how different techniques in cinematography produce different effects. My new understanding has helped me see films in a different light. Before my Take Five classes, I watched movies as a form of entertainment. Now, while I still enjoy the entertainment experience, I

can see the idea and intention behind every shot, every editing, and every dialogue in a film. In addition to exploring the process of film production, I was also able to learn about the social aspects of film. Many films throughout the history of cinema are reflections of different time periods and events. Even films that people sometimes do not think much of, such as the original *Godzilla*, have in-depth meanings.

By the end of my Take Five program, I hope I will have gained a better understanding of a director's perspective on film production, as well as a broader sense of knowledge to create films that express my own unique ideas. So far, the Take Five program has given me the experiences I desired, and I am very grateful for the opportunity I have received.

Russian Artistic Criticism **Calvin Peck**

The intent of my Take Five plan was to use contemporary Russian Literature as a lens for contextualizing Russia's current state as well as periods of its history. Of course, in order to do this I needed to gain an understanding of the history of Russia and its literature myself. Upon being accepted into the Take Five program, my subconscious naively assumed that making connections between modern Russian Literature and its extremely complicated history would be transparent and docile. How quickly humbled I became after the first course in my plan expected me to compare beliefs of Russian Orthodoxy to the narratives within novels by Dostoevsky, Bulgakov, and other great Russian writers! Despite the apparent difficulty of the coursework, I was consistently stimulated by all of my coursework. I learned that throughout reign of the Tsars as well as in the Soviet era, Russia's greatest literature has always engaged in uneasy societal criticism as well as in the existentialist dialogue it is famous for. Contemporary literature is no exception to this, though after the extreme censorship in the USSR was finally loosened after *perestroika*, writers can finally reflect on both the bad and good aspects of Soviet culture as well as those in Vladimir Putin's Russia. Though the structure of these works reflects many new styles ranging from post-modernism to 19th century

romanticism, contemporary Russian authors are as capable of navigating multiple profound narratives through a text as their predecessors were.

If there is anything I have gained from the Take Five program, it is the ability to observe, contextualize, and critically think about not just Russia but the world in general. This is a skill that can especially get lost within the concentrated focus of musical study that exists at Eastman, where I spent the majority of my previous four years in college. Instead of constantly thinking about how I can apply the information in my classes towards advancing my musical career, I instead received the opportunity to step back, engage in an unfamiliar field of study, and pleasantly digest unique perspectives on art, history, and the world in general that I never would have previously appreciated to such a degree. In this sense the Take Five program developed intellectual skills that I can use in the future beyond my career, in all aspects of my life.

The Visual Identities of Women **Mariana Pugliese**

When planning my Take 5 project, I knew that I strongly identified myself as a woman and wanted to explore the theme of identification more closely. I also hoped to combine Studio Art into my proposal as I had missed the creative atmosphere of my art courses in high school and wanted the experience at a collegiate level. To integrate these two ideas, I planned to use studio art as a method of presenting and analyzing my Take 5 journey of exploring women identities.

During this year, my project developed as my thoughts about women's identities expanded and changed through coursework. *Psychology of Gender, Women in Politics* and *Philosophical Foundations of Feminism* proved extremely helpful in realizing the difference of sex and gender and developing my understating of the varied forms of feminism. I became passionate about learning the rich history that Rochester and Upstate New York have as the birthplace of the women's rights movement, took a trip to Seneca Falls to see where the first Women's Rights Convention took place and even felt the need to educate my family during Thanksgiving dinner about the region's

accomplishments and about the injustices American women have overcome throughout the centuries. Somewhere during fall semester, my agenda expanded from exploring identity through art to becoming an activist for the feminist movement. With scheduling conflicts, I was unable to take as many studio arts courses as I wanted, but have dedicated much personal time to creating artwork that questions femininity and identity.

Overall, my Take 5 year has been a year of creating ideas and inspiration. By questioning women's roles, identities and values, I have brainstormed a multitude of future art projects. In learning about societal values that put children into clear-cut and restrictive gender boundaries, I am inspired to work toward educating families and creating an environment where people do not have to be defined by gender stereotypes. This year has not been just an opportunity to explore an academic interest, but has provided me with information, tools and passion that I will apply to all aspects of my life, including future career and personal pursuits.

Religious Influences on Western Culture **Jennifer Rafferty**

The aim of my Take Five program was to study how religious beliefs and traditions have influenced the development of Western culture: in particular, how religion has affected social norms, ethical values and the political system of Western society. Religion instills moral codes, practices, traditions and values that are reflected into society and my goal was to gain a deeper understanding of how these values are interwoven in the Western culture.

I found it necessary to enroll in a combination of courses that provided a strong foundation and history of religion. Religion 101 and 102 (Introduction to the Old Testament and New Testament, respectively) were two courses that examined the Bible in social and historical contexts. Although I was familiar with some parts of the Bible through church in a religious setting, I previously did not have the opportunity to study religion in a historical, unbiased perspective.

History 220 (History of Christianity) was a course that connected Christian beliefs with the behavior of society in a historical context. Similarly, Religion 221 (Jews, Pagans and Christians) focused on religious conflict and the issue of religious polemic among Jews, Pagans and Christians of the ancient world. This class was particularly interesting because the theories behind religious conflict and polemic are also applicable to modern day religious conflicts.

It was also important for me to have chosen courses that gave me a broad sense of Western culture while still relating back to religion. In anthropology 218 (Birth and Death I: Vital Events in Our Personal Lives), I examined the influence of birth and death on human experience and discovered how religion plays a role in these unavoidable events. Italian 220 (Dante's Divine Comedy) analyzed *The Divine Comedy* not only as great literature but also from a cultural perspective. The course approached Christian traditions that were entwined with history, literature, politics and philosophy throughout the work of Dante. Political Science 291 (First Amendment and Religion in America) was appealing because it directly correlated the effect of religion on politics in the United States. Even though the nation does not have an official religion, I studied how religion played a role in the continual development of the political system of the United States. Analyzing another important part of Western culture, Art History 280 (Native American Art and Religion) explored spiritual and artistic traditions of Native Americans and we focused on many issues concerning secrecy, privacy and ethics of studying indigenous religious traditions.

The depth of knowledge that I sought was multifaceted as opposed to many Bible studies in church settings that are biased with only one perspective to interpreting religion. Thanks to the Take Five program, I fulfilled my fundamental desire to gain awareness of the religious influences on Western culture. I discovered how religious beliefs can have a profound affect on Western culture and that even an individual with no religious background can still be effected by the way religion is intertwined in so many areas of society.

The Role of Women in Developing Countries
Lauren Reynolds

My Take Five study of “The Role of Women in Developing Countries” was a fascinating experience that I am grateful to have had. I was able to explore entirely new topics in the classroom and discuss issues that had never been brought to my attention, not only regarding women but also oppressed groups in the United States and around the globe. I gained a new perspective on the relationship between the First and Third World and the roles that gender, race, religion, governments and corporations have in shaping their communities and international affairs.

Further, what I thought was going to be a short glimpse into the lives of others in distant countries turned out to be a surprisingly self-reflective experience. Although I loved my major, Neuroscience, this year I decided that I am more passionate about pursuing a career in law and will be attending the University of Pittsburgh School of Law in the fall. Take Five inspired me to participate in the legal system and address some of the issues I have recently learned about at home and abroad.

Identifying the Self through the Journey of Death
Caitlin Rioux

At the outset of my Take Five excursion, I had planned to do a study on the ways in which various cultures appreciate and understand death and death rituals within their communities. I was interested in investigating the particular event of death and how its existence in the human world affects the way people lead their lives on this planet. For Eastern and Western cultures and religions, the event of death holds different meaning, and persuades the way in which a community of people lead their lives. Ultimately, through this program, I wanted to find out how a person or group of people identifies or defines themselves on life’s journey to death.

Nearing the end of my Take Five program, I’ve realized that I have ever more questions now, regarding identity, and the everyday meaning

of life. By no means were these questions something that I could've answered in a year. In fact, most people wonder these questions for their entire lifetime. What I have been able to answer are the smaller questions regarding Eastern and Western religions and cultures. By now, I understand the basic concepts and wonders of Hinduism and Buddhism and their context within the great Hindu stories of the *Mahabharata* and the *Bhagavadgita*. I have read the entirety of the Old and New Testaments, which ground the foundations of Judaism and Christianity. I have begun a journey into the ancient orders of Sufism, as found near the beginnings of Islam. And perhaps most importantly, I've begun to understand what death means in each of these religions, these cultures, and for these people at these certain places and times in the world.

So, what have I learned about death? Foremost, I've learned that death is absolute and no one person on this planet is exempt from it. In that light, it is true that every single person must contemplate their own death, as well as the deaths of others in their lives, and they do so within the context of their own culture and religion. I've learned that death is a community event, an individual event, a process, a rebirth, sometimes a business, a passage into a new world, and for some -- the closest point to God. It is hope, it is unjust, it is freedom, it is misunderstood, it is salvation, it is ineffable. But for every single person, it is the exit point of the life as they knew it.

Perhaps the singularly most interesting class I took during my Take Five Program was *Speaking Stones*, a class which took place each week in our very own Mt. Hope Cemetery. In the process of searching for the cultural traditions and death rituals of cultures around the world, I realized how very little I knew about the traditions surrounding death in my own culture. While taking this class I realized that the individuals who have left a reminder of their lives on the graves in Mt. Hope Cemetery have become an immortal part of an unseen future. *Speaking Stones* is perhaps a perfect example of how I will always carry with me the knowledge I have gained in this Take Five Year. Just as the past citizens of Rochester have left a mark of their lives on this city in Mt. Hope Cemetery, so too will the impressions, insights, and wisdom I have

gained during this program, remain with me as I grow and continue into my own future.

The Ties Between the Roman Catholic Church and the History of Italian Culture

Sara Ripp

For this project, I set out to broaden my horizons through the study of Italian culture and how it evolved with the Roman Catholic Church. As an engineering major, I have not had much exposure to courses in the humanities. I have always had an interest in religion and how it affects cultures. Having attended a parochial high school, I decided to study the Roman Catholic Church, and believed that the Italian culture is one that it had the greatest effect on. To do this study, I thought that immersing myself in the culture would provide me with the most effective way to appreciate how the Italian culture has grown with and been affected by the Catholic Church. The Take Five Scholars Program afforded me the unique opportunity to study abroad for my Take Five project in the Italian city of Arezzo, which is something that I would not have been able to do otherwise with my engineering major.

My studies abroad included courses in art history, Italian history, Italian language, and a cultural mosaic course that taught us subjects ranging from ancient Roman architecture to Dante's *Divine Comedy*. In art history, it was clear how religion influenced much of the artists' work over time. It was interesting to learn about art not only in the forms of paintings, but in church façades and architecture. Much of the ancient architecture had religious influences and symbolism incorporated into its design. From the course on Italian history, I learned about how the church influenced Italian politics. The mosaic course included a section on ancient architecture, Dante's *Divine Comedy*, Galileo, and Italian culture. For Italian culture, we were paired with an Italian student to both learn Italian and to learn about Italian culture. Learning about culture from a peer gave me new insights to add to what I learned in the classroom. Of course, I had plenty of my own cultural experiences while traveling on my own on the weekends. Through the program, I was provided an opportunity to teach a little boy English. Being around

his family multiple evenings during the week was definitely one of the most culturally enriching experiences I had in Italy. My studies in Arezzo, Italy, not only provided me with a greater breadth of knowledge on Italian Culture and the Roman Catholic Church, but also gave me the opportunity to be a more well-rounded person. The new perspective I now have on different cultures is not one that I would have gained during my collegiate career without the Take Five Scholars Program.

The Influence of Color on Social Media
Stephania Romaniuk

While my past four years at Eastman have been exhilarating, I came into the Take 5 program wanting to dive into the real “college” experience. My courses included Digital Media, Modern Art, Local and Global Market Research (in the anthropology department), Film as Object (film preservation), Introductory Painting, a PR & Marketing internship for the International Theatre Program, and an independent study on Matisse. My intention was to study how artists have used color in the past, to experiment with working with color myself, and to look at how marketers use color to attract and influence the consumer (particularly via the digital media that seem to surround and at times overwhelm us today). I was fascinated by color and its incredibly tactile properties and equally fascinated and repulsed by the ubiquity of digital social content.

It didn’t take long for me to realize that the classes were extraordinary. What made the experience meaningful and especially useful for me was extrapolating how I could apply the course content in other situations. For instance, many of the case studies we examined in ANT 227 were quite context-specific, but by abstracting the format of how to do a case study, I was later able to organize and conduct my own focus group on color in social media using similar principles.

If I were to continue my research, I would look into how using a white background acts as an invitation to fill it with your own content. That, to me, is one of the key facets of social media - you are authoring your own experience. Like the blank page or tabula rasa, the white

background feels free and open, rather than scripted or styled according to someone else's tastes. Apple was one of the first companies to make the color white an integral part of their brand, and I think much of their appeal comes from the simplicity of their product packaging. I would like to see how Apple's aesthetic decision played out and whether it had an influence on the designers and writers of the Internet and the social media sites we use today.

Finally, to answer the most frequently asked question I receive these days, it is because Mark Zuckerberg is partially color-blind, and blue is the color he sees most vividly. (Question: Why is Facebook blue?) Blue also happens to be a beloved color the world over, and is, in fact, the Internet's favorite color. Having some time to explore how art, digital media, marketing, and color theory come together to shape our experiences has been truly fruitful and inspiring for me. Thank you, University of Rochester, for this singular experience!

The American Environment
Chelsea Shaffer

A cross-country drive inspired me to create a Take Five based on understanding the geology of the U.S. and how Americans perceive and are affected by geologic processes. As a kind of culmination of my program, I was lucky enough to take another long drive, this time through the state of California, observing and learning about the active processes that shape our country physically and in terms of society.

I feel satisfied with the outcome of my project. My study has revealed the incredible richness of the way people use the physical environment in order to construct meaning and create identity, as well as allowed me to understand how those environments came to be in terms of geologic processes. In order to understand the geology of the U.S., I had to develop an understanding of Earth-scale processes, and my understanding of the way people are affected by geology and tectonics has also been international. I have become aware of and attuned to the relevancy of my studies in terms of how these immense processes create present hazards, especially with regard to the Eyjafjallajökull eruption,

the 2010 Haitian and Chilean earthquakes, and the more recent Japanese earthquake.

As an English major, I have also applied this knowledge to better understand the use of nature in literature, specifically in terms of the Romantic poets' understanding of the sublime as well as J.W. von Goethe's interest in geology and the relationship between nature and art. Yet the experience that I have had in my Take Five courses has also convinced me that I can understand things that I previously thought beyond my grasp. Past giving me the skills to further my study of geology and the relationship between the environment and its inhabitants, I have also been inspired to independently study physics and chemistry: the motivation I have as an independent learner has intensified in the attempt to synthesize my Take Five focus, The American Environment.

Health & Security in Post-Conflict Societies **Sumir Shah**

Incessant in the news these days are the numerous political conflicts that plague our world. This inspired me to apply for a Take 5 year in which I could investigate the effects of these conflicts and how they are handled by governments. I was puzzled by their reoccurrence and increasing violence and thus wanted to gain an all-encompassing understanding of them by taking classes in international relations and anthropology. I believe that investigating my questions through multiple perspectives has been a very enlightening experience, forcing me out of my *science* comfort zone where most problems have clear, black and white answers.

I began with taking classes that taught me the background and general mechanics of international relations and then applied them to an independent research study in my final semester with Professor Shawn Ling Ramirez. Here, I investigated the effects of conflict on infrastructure and the role that forced migration plays on the spread of disease. Interestingly, I found that some current protocols for handling political conflicts are deeply flawed in that resources are diverted from

public health and the forced migration of refugees transforms them into vectors of disease.

The Take 5 program has been a great experience in which I have been able to learn about something I became interested about after going abroad. It allowed me to view the world through different lenses and pushed me outside my academic comfort zone. The skills I learned and the knowledge I gained will surely make me a more informed world citizen in the future. Therefore, the Take 5 program has not only enriched my academic career, but has also made me into a person that is able to understand and think critically about problems that are outside my area of specialty.

Responses and Insights in Film and Literature of the Societal Effects
Max Siegel

Exploring literary and cinematic responses to WWII and the Holocaust, I was able to gain access to the very specific ways in which the war impacted the arts. My studies ranged from examining the works of authors and directors directly influenced by the war, to those more tenuously connected with the same events and atrocities. Resulting from these studies, I was able to see the transformation of the modernist movement in the former half of the 20th century.

Additionally, I was given the opportunity to examine the war's lasting effect on postmodernism, including reading works by Cynthia Ozick, Kurt Vonnegut and Salman Rushdie. After reading these works, a broader underlying question emerged: What is the impact of fictional accounts of a culture's zeitgeist? Regarding the Holocaust, this is an especially relevant question; the generation of survivors is dying off, and dying with it are the only first-hand accounts of the Shoah. Should future descriptions of social change and calamity be relegated to history books?

This may be an unanswerable question; some see the fictionalization of these types of events as co-opting suffering for personal gain, whereas others view it as a legitimate form of artistic expression. In short, it is an incredibly subjective question, and the answer lies in each individual's

world-view. Maybe this is a good thing; maybe we should never cease to discuss this contentious and important issue.

Through my Take Five experience, I have gained invaluable knowledge regarding this area of study. Though the Take Five program is referred to as scholarship, calling me a scholar would be a slight misnomer; while it is true that I have engaged in a scholarly pursuit, I am far from this designation. Regardless, I was given an opportunity that I would have otherwise never been given. Through this I have learned that intellectual pursuit does not have to be confined to a university campus, and that there is always an opportunity to enrich ones intellectual arsenal. For that knowledge I am incredibly grateful.

I would like to thank all of the people who made this experience possible, but particularly Professor Bette London, Professor Stephen Schottenfeld, and J.B. Rodgers, as well as my parents, Donna and Brian Siegel, for generously allowing me to be completely financially dependent on them for one final (and oh so sweet) year. I would also like to apologize for my overuse of semicolons. Kurt Vonnegut said once (and I'm paraphrasing) that using a semicolon only serves to inform people that you went to college. I learned that this year, too... guess it didn't stick.

Construction of Jewish Identity **Jason Solomon**

I structured my Take Five project to be both broad and specific; I wanted to study the concept of identity development while having my focus on the varying degrees of Jewish identity. I set out to study the history of Judaism and the ways in which it has evolved, especially between different societies. There had always seemed to be this cloud of obscurity around Judaism; who was a Jew, what constituted Judaism; was it a religion, an ethnicity, some combination of both? I wanted to understand not only the tangibles of Jewish identity but also the underlying reasons for the ambiguity surrounding the subject. Most of all, I wanted an opportunity to either own or disavow a heritage that had been conferred upon me by society rather than one that had been individually sought out and embraced.

My experience in the Take Five program exceeded all expectations. As with any preconceived course of study there were obvious discrepancies between what I sought out to discover and what I actually learned, however the areas that my program did engage were provocative and highly pertinent to many of my starting questions. I was able to thoroughly immerse myself in Jewish culture, history and religion and from there develop a kind of spectrum for the Jewish experience throughout history. More specifically, I focused on the Jewish experience in Europe and the United States over the past two hundred years. Overall, I was most impressed by two reoccurring themes; the pervasiveness of inaccuracies and misconceptions purported by non-Jews about all aspects of Judaism and the absolute uniqueness of American society in terms of the freedom of self-identification.

The more I studied Jewish culture and its interactions with other groups the better I was able to understand the ways Judaism has evolved from an all encompassing identity to a transient patchwork of religious, ethnic and culture tones. This evolution is paramount in understanding the constant ambiguity and confusion surrounding Jewish identity; as Judaism has evolved so has its defining parameters, but this evolution has been uneven and uncoordinated, and as a result misunderstandings have persisted. This correlates with the concept of the United States as a truly novel enterprise of social freedom. This is primarily accounted for by the emphasis on a secular government in our constitution; Jews have found a home in America unlike any in history because of the inviolability of the first amendment. However, this is also a reflection that the prevalent intolerance in America is not religiously motivated, but rather racially and for several historical reasons the Jews have found themselves, for the first time in history, in unison with the majority, that is the white population in America. American Jews have the unusual condition of being part of a majority, and a minority, simultaneously, and as result definitions of American-Jewish identity have blurred the boundaries that have traditionally defined Judaism. While there were definite conclusions to my Take Five program there were no finalities and certainly no absolutes. This is illustrative of the topic of my research; the transient nature of Jewish identity. However, at the conclusion of my program I am imbued with the

perspective and understanding to navigate the depths and bends of Jewish identity in and out of the American society.

Explaining Consciousness Via Cognitive and Computer Science
Tyle Stelzig

I'd almost forgotten how ambitious my plans were. I wanted to understand consciousness. Not just in the sense of self-awareness, like how could you build a machine that could include a representation of itself in its model of the world. But rather in the sense of subjective experience, like how could you build a machine that could *really* feel pain, or be in love, and not just be telling you what you wanted to hear. Maybe not surprisingly, I didn't figure this out.

I attacked consciousness on three fronts. Cognitive science was supposed to help me understand the tasks performed by the brain, and the mechanisms and structures involved. Computer science was supposed to introduce me to algorithms that emulate human behavior, and thus to give me a broader perspective on what constitutes intelligence. And finally, philosophy was supposed to help me figure out what consciousness even *was*, and how it was related to the insights I hoped to gain from cognitive and computer science.

That's not quite how it worked out. After a few courses in cognitive science I reluctantly accepted that we *don't* know how the brain works. We know something about the brain's gross biological architecture, and have some clues about the areas of the brain involved in different types of information processing tasks. However, we don't have a good characterization of these tasks, or of what types of computation the relevant brain areas are performing. I turned to philosophy with cautious optimism, but quickly found myself embroiled in a maelstrom of confusion and controversy, trying in vain to stand on ever-shifting definitions while I plunged deeper down the rabbit hole. By the time I discovered in my computer science classes that my greatly anticipated general intelligence algorithms *don't exist*, I must admit I was hardly surprised. Computers can do a lot of really fancy things, but the algorithms involved are remarkably domain specific and didn't give me any helpful clues on consciousness.

However, this project was less of a waste of time than it sounds. I'm a physics/math major, and as such I've grown accustomed to definite facts and well-developed theories. Cognitive science, meanwhile, is still very much under development. I was initially frustrated not to find any easy answers, but I've grown to appreciate the opportunity to participate in a dynamic, constantly evolving theoretical dialectic. The cognitive science courses that I took as a part of my Take Five program forced me to analyze theories and come up with experimental tests of these theories in ways that physics never had, stretching my critical thinking and creativity.

Computer science didn't pan out as a source for an explanation of consciousness, but it gave me new ways of thinking about intelligence. I learned that surprisingly intelligent behavior can emerge from the interaction of simple subsystems, and that coordinated behavior is often the result of a large number of well-coordinated modules rather than a 'central agent.' I learned that cognitive problems are far more complex and multi-faceted than they sound, and seem to be essentially intractable within a serial framework.

Finally, I came to philosophy hoping for conceptual clarity. While I'm still confused about many of the philosophical issues surrounding my program, I have redrawn the boundaries of what I understand so that I am confused in new and possibly more interesting ways. This strikes me as not a bad definition of learning. I consider my Take Five Program a great success.

***Understanding the Dynamics of Male and Female
Interactions and Individual Behaviors***

Michael Storonsky

One of the defining features of human existence is our capacity to develop meaningful and enduring bonds with others. Of all human relationships the one that most profoundly affects an individual's life is that which they maintain with a romantic partner. My inherent interest in this capacity for humans to connect with another through a romantic pairing is what led me to both a personal and an intellectual curiosity

about close personal relationships. By their very nature, relationships are complex because they involve bringing together individuals with different personalities and – in the case of heterosexual relationships – different genders. It is for this reason that I wished to develop an understanding of the individual in the context of close relationships by pursuing a program of study focused on the role of both personality and gender in romantic relationships.

My Take Five program fulfilled all of my intellectual curiosity pertaining to the study of intimate relationships. Key courses, such as the Psychology of Human Gender, the Psychology of Individual Differences, and the Anthropology of Love, Friendship & Community allowed me to combine theories from discrepant fields to more accurately comprehend the subtle processes involved in romantic relationships. With this foundation in place I was able to capture as much insight as possible from upper level classes specifically on relationship psychology. The culmination of my Take 5 Program is the graduate level seminar that I am currently enrolled in, CSP 555 Intimate Relationships. In it, myself, Dr. Reis, and a dozen of the psychology graduate students analyze and discuss current journal articles being published in fields related to relationship psychology.

The Take Five Program has allowed me to develop the truly unique ability to comprehend relationships from an informed, scientific perspective. It has allowed me to help others with issues in their relationships, as well as to lead more fulfilling relationships of my own. This is a skill which I will be able to carry with me and use every day for the rest of my life, and for that I am truly grateful to the Take Five Program.

Global Perspectives in Public Health
Stephen Supoyo

Health as a *fundamental human right*. This concept, novel to most Americans, became the basis for my interest in a Take Five program in public health. Among the many goals of my Take Five proposal, one was to reach an understanding of the causes behind the world's health disparities. Another was to be able to formulate my own opinion on the

U.S. healthcare reform debate, and to better understand our health system. I pursued these interests during my Take Five through coursework in global development, public health, international health, epidemiology, and U.S. health policy.

Much of what I learned has had the effect of challenging some of my most fundamental beliefs. I learned that in order to understand some of the world's deepest health disparities, one must look beyond cures and diseases to the social and economic underpinnings of society. In South Africa, for example, the dissolution of indigenous tribes for a steady supply of migrant wage laborers has led to a loss of traditional values and cultures and the spread of poverty. These have been the major factors behind the spread of HIV/AIDS and tuberculosis in South Africa. Also eye-opening was learning the distinction between what is called "international health" and the nobler movements of "health internationalism." An example can be seen in the history of the Rockefeller Foundation, which largely focused on the "diffusion of knowledge" from Western institutions to the "periphery" in colonial fashion, ultimately leading to the massive failures of the malaria eradication campaigns. On the other hand, "health internationalism" can be seen in the true collaboration of health organizations across all political, social, and economic boundaries, as seen in the WHO's successful eradication of smallpox in the 1970s, or in Dr. Paul Farmer's work with Partners in Health more recently. In studying health policy, I also reached an understanding of the complexity of American politics, such as in the implicit design, by opponents of universal national health insurance, of the age-specific Medicare program as, in part, a barrier to future generalized reform. In public health, I came to a new understanding of race as a social construct and cause for poor health, rather than as a biological predisposition to certain diseases. I questioned the validity of the media's interpretation of health studies, and I even adopted a critical worldview with my growing realization that the excesses of capitalism in the "Global North" often lead directly to challenges and shortages in the "Global South."

I have also had the opportunity to apply my knowledge practically as a volunteer intern at the UPMC Center for Community Health. I

currently advocate for health policy changes in the area of home child care, promoting better child nutrition through increased participation in government food programs. I am also working to provide a better picture of how the United States has persisted as the only First World country without universal healthcare through an independent study investigating the history of twentieth century American attitudes towards the uninsured.

Thus, the result of my Take Five year has been to give me a deeper, more analytical understanding, and to instill in me a clearer sense of social responsibility as I enter the "real" world, hopefully as a better informed, global citizen. For this, I sincerely thank the University, my many mentors, especially Dr. Theodore Brown, the Rochester community, and Take Five for the enlightening opportunity.

Music Composition Across Genres
Leah Taylor

Ever since my first piano lesson when I was seven years old, music has been a constant throughout my life. My musicality has broadened throughout the years as I was introduced to viola, guitar, and voice.

However, it wasn't until college that I was exposed to elements of music beyond performance. My decision to attend the University of Rochester came with an excitement to take advantage of the musical offerings at Eastman. However, my heavy course load as a double major left little time for elective classes. After taking a few music theory courses for my cluster, I began understanding music in a structural way and I was intrigued at the idea of writing my own compositions. As a hobby, I started writing folk songs for guitar and voice and performed around Rochester at open mic nights. While songwriting was a hobby of mine, I wanted to learn about composition in a more academic setting. My Take 5 year contained a mixture of classes at Eastman and River Campus focused on compositional techniques. Over the course of the year, my goals shifted slightly and I found myself learning even more than I set out for.

My curriculum allowed me to explore composition both traditionally and technologically. I enrolled in two semesters of *Composition for Non-Majors* and two semesters of *Computer Music* at Eastman. Both of these classes called for the completion of a piece by the end of each semester. To support these composition classes, I took a music history course and genre-specific music classes including *Jazz Improv* and *Jewish Music*. Furthermore, I took a notation class, which proved extremely useful, to learn notation software programs and the wide range of notation styles and techniques. To support my technical interests, I was able to intern at a local recording studio for two semesters. Composing music proved more challenging than I expected and I found myself very frustrated at the difficulty of notating my ideas. Furthermore, I was overwhelmed with possibilities and found difficulty in defining myself as a composer and deciding what kind of music to create. Persevering through these challenges was certainly the most rewarding aspect of the year. Surprisingly, my favorite part about my fifth year pertained to music technology. By the end of the year I was confident in my understanding of sound and various software programs to create sound. *Computer Music* combined with my internship really gave me useful music technology skills. My boss involved me in recording sessions, live performances, and the business side of his company. This has given me valuable experience in audio engineering, which was made easier by the information I learned from my computer music classes at Eastman.

When I applied to Take 5, I had a dream of creating music and learning compositional techniques. Writing compositions pushed me out of my comfort zone and broadened my understanding of music, which is what I set out to do. The skills I have learned about notating, writing, and music theory, will undoubtedly influence my own songs in the future. But beyond that, I was surprised by my interest in the technological side of music. My new skills in audio engineering will serve me well in my own music endeavors and I am sure I will continue to experiment with the programs I have learned in *Computer Music*.

Amazingly, there was not one class that I did not enjoy in my Take 5 curriculum. Used to large economics classes and psychology classes, I was pleasantly surprised by the small classes and personal attention I

received in my Take 5 classes. While I probably won't be the next Chopin, I am certain that the knowledge I have acquired this year has shaped and will continue to shape me as a performer, songwriter, and music aficionado. I am so grateful to U of R for allowing me such an invaluable experience!

Ecology, Environment, and Sustainability in the 21st Century
Isaac Toussie

After almost finishing my major in economics and minor in music I realized that it just wasn't enough for my intellectual fulfillment, so I desired to learn more to balance out my academic studies. Inspired by such wake-up calls as Al Gore's *An Inconvenient Truth*, I set out in my Take 5 to better understand the many ways humans interact with and impact the planet from as many departmental perspectives as possible: ecology, environmental science, political science, anthropology. I hoped to find the clues to how we can create a "sustainable" future, while staving off climate change and environmental degradation.

While my initial proposal included some courses that were not offered this past year, I replaced them with new courses that ended up broadening my horizons and teaching me more than I expected. For example, I added the Anthropology course "Nature, Landscape, and Environment" midway through my Take 5, and ended up learning more in it than any other class.

Many of the courses I took left me with a pessimistic outlook for the future of the planet in terms of environmental quality and overpopulation. However, others were more hopeful, asking the question of what we can do and what is being done to combat the many issues plaguing society. For example, EES320 "Sustainable Systems" has been a particularly optimistic course, exposing me to recent developments such as LEED accreditation for green building, and the growing trend towards smart growth in urban planning.

Top 10 Things I Learned In My Take 5

1. Sustainability is almost impossible to define and means something different to everyone. I think of it as an all-encompassing term that leads to other slightly vague categories: economic sustainability, environmental sustainability, social sustainability, human sustainability, etc.
2. While economic theory about laissez faire and free trade are all flowers and roses in theory, in practice things often happen not out of economic efficiency, but rather for specific political and economic interests.
3. Most of our electricity in the U.S. comes from non-renewable coal and/or natural gas that pollutes the environment and contributes to greenhouse gas emissions.
4. The political gridlock typical of environmental legislation (e.g. the fact that we have yet to see a carbon tax, cap-and-trade system, or climate change agreement) as well as the fact that what often does get passed ends up being some combination of inefficient, unfair, and ineffective policy, is indicative of the systematic failures of the two-party system of modern democratic capitalism in the U.S.A. One of the largest of these failures is the effect of having an incentive structure such that corporations receive concentrated benefits and widespread costs from lobbying efforts, while the “rationally ignorant” public receive concentrated costs and dispersed benefits, and thus their voice is rarely heard. The dominance of the corporate game over Washington often leads to environmental harm, weak/inefficient regulation, and inequitable distribution of welfare.
5. We are probably beyond the carrying capacity of the Earth at around 7 billion people. If we grow as predicted to 9 billion by 2050, there will be enormous repercussions for climate change, water scarcity, biodiversity, environmental quality and more.
6. Having an interdisciplinary skill set is essential to understanding the multi-faceted nature of current environmental issues and sustainability.

7. If you haven't seen the film *Food, Inc.* and never lived on a farm, do yourself a favor and see it. You will never see a grocery store or food the same way.
8. Campus food finally got better now that I am off-campus and leaving Rochester.
9. Learning is fun. School isn't.
10. Global warming will probably be good for the weather in Rochester.

Lost in Translation: A Case Study in the Acquisition of Language and Semantics
Rose Tsai

At the beginning of my Take-5 project, I planned to learn about the acquisition of language, but more specifically, the acquisition of a second language and its semantics, through using myself as a case study. Some questions I sought answers for during my program included: what biological and psychological theories exist to explain language acquisition? What is easy and what is difficult about learning a new language? Why do children seem to learn new languages more capably than adults? And my biggest question: does expression of oneself through the medium of language, particularly a second language, ever get “lost in translation”?

Through my program, I have gained much breadth and depth in my understanding of language and language acquisition. I have learned about some of the building blocks of language through Linguistics courses in morphology and semantics. This has given me a much larger appreciation for the phenomenon of learning and using language, which is something so complex yet also so accessible to many people. Through my BCS classes, I have learned about theories that seek to explain why acquisition may come more easily to children than adults (for example, the critical period hypothesis) as well as theories concerning language comprehension. Though comprehension is a distinctly different field of study than acquisition, studying comprehension has given me a deeper understanding of acquisition in general.

What's left in my program is my independent study with Professor Paauw, through which I hope to tie everything I've learned together with my own experience in learning Spanish. Learning Spanish has definitely been one of the highlights of my program, since experiencing language acquisition firsthand has provided a depth that studying from textbooks cannot. The Take 5 program has been a wonderful opportunity, and though the semester is coming to a close, I am very grateful for the learning experience it has given me.

***The Effect of the French Language on Culture and vice versa, a
Linguistic Perspective***
Katherine Tucker

The focus of my Take Five is in understanding the effect of the French language on French culture and vice versa, from a linguistic perspective. French was chosen as a case study for modern linguistic change, looking at things such as the effect of the French Academy, which regulates the French language, the effect of the influx of Arabic-speaking Muslims into France since World War II, and the effect of borrowings, specifically English borrowings commonly used for technological words and phrases.

When I started out my study of researching the effects of culture on language and vice versa, one of my main focuses was on studying the French language—I wanted to become more proficient in French, a language which I studied for five years in middle and high school but had not studied since arriving at the UR. The first semester of my Take Five was spent studying abroad in Paris, France. Here I took a French conversation class and a French grammar class and spent much time around French speakers, all of which advanced my knowledge of French greatly; more importantly for shaping my Take Five studies, though, I took several classes which focused on the culture of France. These classes, though not looking specifically at the effects of language on culture or culture on language, shed much light on these points. For the past two semesters I have focused more on studying linguistics rather than focusing on learning French.

There is so much to study about the correlations between language development and culture which can not be learned in just three semesters, but my studies thus far have given me a good basis of understanding linguistic analysis and looking at the development of language and what social and cultural aspects have effect on the development of language.

The Evolution of Literary Genres: From English Theater to the English Novel

Danielle Marie Wedde

While various literary works entertain and move their audiences, perhaps more importantly, prose, poetry and dramatic works (or at least those which one studies at the University of Rochester) engage readers in larger societal, economic, moral, and philosophical issues which somehow, directly or indirectly, impacted the author. In this way, one can classify literary periods not only by the time in which the authors live, but also through the themes or problems which the authors raised. Upon entering my Take Five program of study, I began to notice the historical backdrop embedded into the works of Jane Austen. Indeed, a work of fiction can tell the story of a romance (as usually associated with Austen's works), but as in this case, issues are also raised concerning the British marriage market, problems of gender, and the Royal Navy and the Napoleonic wars as highlighted in *Persuasion*. Also, for example, in *Mansfield Park*, historical themes of trade with the West Indies are embedded into the story along with the concern with play acting and the dangers that it might elicit as a genre of passion or irrationality. This last point was particularly provocative. If Austen did see theater as a genre as somehow problematic, did other writers find novels problematic? Were certain literature genres more popular with writers, critics, and audiences at certain points in history? How ought we to decipher the author's message through different forms of literature, and how are "devices" used differently in the atmosphere of a public stage versus the private experience of reading a novel? In this realm, problems of reading, narration, and character were also ones which I set out to examine. For example, how does the author-reader relationship develop through a fictional character in the respect of creating a

character model of how the author believes one ought to behave, or similarly ought not to behave? Ultimately, I aimed to investigate how, in the history of English literature and beyond, varying forms of fiction can serve to convey information.

In my Take Five experience, I have had the opportunity to analyze these problems through many perspectives by taking on the roles of reader of novels, reader of poetry, reader of history, author, audience member, actor, and critic, and each role has been illustrative in piecing together a tapestry of how stories and characters, no matter what genre, expose the human mind and soul to experience the message of another time and space. Characters can serve as instructive models or as realistic images of human life. However, it remains unclear, and highly contested among authors themselves, as to which of these is the proper function.

As Austen seemed to question the role of the theater, the role of the novel was controversial and an ambiguously defined genre. During the emergence of the English novel in the early 18th century as a popular form (as books also became more easily distributed and widely available to more readers), critics raised the question of whether or not novels were dangerous in the sense that they had the power to shape impressionable minds, and if so, what message they ought to convey. For instance, Samuel Richardson's *Pamela* depicts the character Pamela as a model character who is rewarded for her constant virtue. However, many satires were published including Henry Fielding's *Shamela*, which together deliver contrasting views to the moral implications of the novel as well as its implications surrounding gender roles and class structures within British society. A similar controversy surrounding the role of the theater occurred during the Restoration period when theater became a popularized form of entertainment after the Puritan ban was lifted. The Restoration introduced sexually explicit comedy and the figure of the rake as in Wycherley's *The Country Wife*. However, some thought the stage should be reformed and deliver models of morality such as Steele through his play *Conscious Lovers*. Seemingly then, regardless of the time, whether through the spectacle of a play or the introspective experience of reading the novel, the question seems to remain, what

ought to be the role of literature and art? This reminds me of the modern-day highly debated problem surrounding the story lines of video games which engage “impressionable young minds” through fiction and entertainment.

I had the opportunity to explore the devices of theater through various courses including a trip to London for the *Theatre in England* course. During this trip, I was exposed to a range of genres within drama, and I reflected on these experiences through discussion and journaling. Probably the most profound aspect for me, which resonated throughout the different productions, was the importance of timing in conveying a message as well as the added layer that movement and staging add in crafting a story. While timing certainly is present in reading, in a play the importance is only magnified. During the ballet production of *Cinderella* (which did not have any dialogue), it struck me how words were an option, not a necessity, in connecting with human emotion and telling a story. In contrast, I had the opportunity to read plays while taking *Russian Drama* and *Shakespeare* and to act in a play in the Todd Theatre production of *Danton's Death*. In the first two courses, I was able to compare and contrast across two dimensions of theater – ways in which the craft of theater has evolved from Shakespeare's time to the 20th century and how themes and devices are used in English theater versus the other great plays from around the world. Most shockingly, not only do English authors and playwrights commonly reference Shakespeare in their works, but also so do the great Russian playwrights including Gogol.

Intertwined throughout the most influential and pivotal works of prose, novels, and dramas are usually commentary about pivotal historical transitions such as, to name a few which have been important in my studies, the Industrial Revolution and the French Revolution. These events proved far-reaching and dynamic. For example, as with the French Revolution, it impacted more than only French writers. Its span reached literature in England and Germany (for example Buchner, author of *Danton's Death*). The Romantics were largely influenced by these events as we see with poets such as William Blake who question the societal impacts of industry. It seems though; that these pivotal

historical events also increased problems of narration, for as society progressed through industrialization and individual rights, writers became stronger and more divided in their opinions, as did readers. Different narrative styles, from the epistolary style of many early English novels to the Romantic poetry of Shelley to the dramatic monologues of the Victorians, are used as vehicles through which the authors can comment. While at first it might seem trivial, indeed, *which style* has a great impact on the reader in terms of taking a more aggressive or passive tone when delivering a moral or comment on society or morality. Social commentary through narration need not even be the author's conscious effort. For example, the framed (and possibly competing) male and female narratives within Emily Bronte's *Wuthering Heights* raise the issue of gender and Bronte's authorship as a female versus her likely male critics.

Overall, I have studied a great breadth of literature and history for my Take Five program. Certainly authors make different commentary across space and time, and as these genres evolve through time, so does our understanding. At times, it is more interesting to examine *how* a message is conveyed in addition to analyzing the message itself. In doing so, I have learned a great deal about how I view and connect with the world through literature, past and present.

Ethnographic Backgrounds of the Jewish Identity
Lisa Weiner

For my Take 5 program, Ethnographic Backgrounds of the Jewish Identity, I planned to explore the historical development of the modern Jewish culture. My intellectual goal was to better understand how the Jewish identity has become so distinctive using a cross-disciplinary approach. More specifically, my program included courses in social linguistics, ethnic politics, Jewish history, and films about the Holocaust.

In reflecting on the discourse of my Take 5 program, I feel as though I have gained more knowledge about the subject of Jewish acculturation than I could have ever expected. I was able to study the Jewish population from many different perspectives: as an ethnicity, as a

nationality, and as a religious group. Additionally, the historical founding of the Israeli state and the origins of the religious schism between Christianity and Judaism, were two subjects that I found to be especially intriguing during my program. As a result, I garnered a deeper understanding of the complexities of the Jewish identity, accomplishing what I set out to learn.

***Looking Forward and Backward: The Position of the Early
Impressionist Painters***
Adam Witzel

Broadly speaking, I sought to learn about the art produced in the period between the middle of the nineteenth century and the first part of the twentieth century. In order to focus my study, I centered my program on the Impressionist painters and intended to look at the ways these artists were in communication with other major artistic movements. Understanding the various techniques, subjects, ideals, and social contexts was essential. Thus my program included courses in the departments of Anthropology and History as well as the department of Art History. To finish my program I planned to do an independent study that would bring together and expand upon the material I learned through my coursework, and trace the various ideological threads running through art in the latter part of the 19th century.

I am happy to say that I achieved my primary goal of understanding the contexts in which Impressionist painting arose. Although I did not get the chance to read as much nineteenth century continental philosophy as I would have liked, I was able to take an excellent course taught by Professor Westbrook that covered twentieth century French thought. The readings in this course provided me with a context for the critical works that I read in my Art History courses. This leads me to a product of my Take Five program that I did not consciously anticipate—I am now fairly well versed in the discussions taking place in contemporary art theory. To bring my program together, I am currently working on an independent study with Professor Duro where I am studying the relationship between Baudelaire's art criticism and the early Impressionist painters. This project brings together my knowledge of 19th century art and newfound interest in theory.

This past year has undoubtedly been the most stimulating and complete year of my college career. The opportunity to study a single idea over an extended period of time has been an invaluable source for intellectual and personal growth.

Understanding Knowledge
Evan Wormsbecher

When I was accepted into the Take 5 program at the end of my junior year, I had little idea just how far it would take me. My intention was to obtain a clearer picture of how it is that we know that we know anything through the lenses of philosophy, linguistics, and brain and cognitive science. The interdisciplinary nature of my program has proven invaluable to my progress towards the achievement of this goal.

Half of my program consisted of constructing a philosophical groundwork for my understanding of knowledge. The study of reason and argument helped me learn to better assess the logical validity of actual written passages. A course on the British empiricists Bacon, Locke, and Hume helped me to better understand the philosophical underpinnings of the scientific method. The cornerstone of my Take 5 program was a graduate seminar on contemporary theories of epistemology, especially Evidentialism – the theory that a belief is justified just in case one has evidence supporting said belief. My coursework in philosophy prepared me to seek supporting evidence for beliefs in other fields.

My study of linguistics served to underscore just how little we really understand the fundamentals of communication. With so many possibilities for ambiguity in speech, the question of precisely how it is that words convey semantic meaning remains an open one. The theories of linguistics may one day find support in neuro-imaging studies, but for the time being, brain and cognitive scientists still have much to learn about how things like semantic meaning are stored and processed in the brain.

Although my initial question of how we know that we know anything remains unanswered, my Take 5 studies have provided me with a broad framework in which to continue to pursue answers. I look forward to continuing this study of epistemology in years to come.

Philosophy of Science

Aaron Yarmel

Two years ago something happened that surprised me. I had just finished reading Philip Kitcher's "Theories, Theorists, and Theoretical Change" for a class called Science and Reason, when I had the realization that there was nothing else I would rather do at that moment than re-read the paper. I re-read it, and what followed was a week where most of my thoughts involved "reference potential" and "incommensurability." Although I was a bit bothered, at first, by the realization that my thoughts had been arrested so unexpectedly and without my volition, a feeling of excitement crept in that eventually dominated the experience. This was a kind of excitement with a unique potency, and it seemed to come from the realization of two facts: the philosophy of science is a discipline that seems uniquely focused on the issues that I happen to find interesting, and studying the philosophy of science greatly improves my ability to deal with these issues.

A year later, I faced a dilemma. I was in the fall semester of my senior year, and I discovered that I had actually found a subject that was more interesting than anything else I was doing. At that point, I hadn't studied enough philosophy of science to believe that I wanted to make it a major part of my life, but I had the sense that I would regret only taking two classes (at that point, I was also enrolled in Philosophy of Biology) devoted to the discipline. I applied to the Take 5 Scholars Program, and I was fortunate enough to be accepted. I named my program "Philosophy of Science."

While my goal for the program evolved throughout my fifth year, it eventually solidified into the following formulation: I urgently needed to decide what role I wanted philosophy of science to play in my life. I am now at the end of my program, and I've concluded that the issues

that form the core of the discipline are the same issues that I want to spend the rest of my life addressing. I will be pursuing a Master's degree next year for this purpose.

I don't know exactly how my interest in philosophy of science will manifest itself in my life, but I do know that the strength with which I am committed to it was largely generated during my Take 5 year. There is no doubt in my mind (or the minds of the people who know me well) that this program has changed my life and propelled me towards a goal that it helped me formulate. I'll always be grateful for Take 5.

Syntax and Structure: Impact on Meaning in Both Language and Dance

Amanda Yazdani

Dance has always been thought of as communicative. It is expressive by nature. When we watch dance we experience emotion by proxy. Language also can do this to us. Dance, however, has never been thought of as a language with its own typology, morphology, and syntax. I saw an opportunity to begin the process of studying dance in an academic context, which is something that has been begun but never fully explored. My Take 5 project was an investigation of the structure of dance and how it affects what the audience feels.

Starting Take 5 I had the ambition but did not have the intellectual tools to investigate my idea. During the Fall semester I learned of Laban and his work with the typology of dance movement. This helped me to start to break down the movement of dance into its constituent parts. I also learned the various levels of the breakdown of language.

It wasn't until my second semester that I really started to fully flesh out a method of inquiry. The as of yet uncharted field is huge, and even in my lifetime I wouldn't be able to even scratch the surface. But I do plan on continuing to develop a method of typographing dances and breaking them down into parts that are more easily replicable. This has potential to impact not just the world of dance performance, but also rehabilitation therapy, and robotics.

***Exploration of the Individual in the Context of Relationships and
Social Groups***
Michael Yee

When I started my Take 5 year, my main goal was to delve deep into the concept of relationships and discover more about their dynamics. By doing so, I was hoping to not only contribute to the academic field of social psychology, but also improve my own life by reflecting upon my own relationships. After several months of rigorous study, I feel as if I have accomplished both of these tasks, but with different results than I had expected.

In the end, I discovered that the health, structure and dynamic of relationships are more dependent upon the individual than I originally believed. All of my academic work pointed to the philosophical notion that human beings are the agents of change in their environment. Individuals are not just an influence in a relationship; they are the determining factor. When we are lonely, sad, or bored, we seek out the company of others. If we find that company to be unsatisfying for whatever reason, then we cease to nurture that relationship and move onto new ones. Thus, psychological needs inherently facilitate in which relationships we choose to engage. When I saw relationships fall apart or end in an explosive, destructive manner I assumed that there was an element that acted like a stick in the spokes of a bicycle tire: the partners failed to communicate correctly, their interests and activities did not mesh well, or there was outside disapproval by friends or family. I was so focused on examining the interactions between individuals that I had ignored the actions, needs, and emotions of the individual. Aside from family, we choose our relationships, they do not choose us.

However, while this does provide a theoretical account of how relationships work, I feel that some empiricism and pragmatism can make it even more viable. You cannot discard a family relationship, so how can it be improved? If relationships are a function of each individual's behavior and character, how can antagonistic conflicts be resolved? My goal by the end of the semester is to utilize my work in the

psych lab as well as the last of the material in my psychology classes and shed some light on how certain therapeutic techniques can be used to improve relationships. My hope is that I will not only be able to contribute a bit of knowledge to the academic community, but also provide a strong foundation of understanding to rebuild my relationship with my family and deepen my relationships with my friends. Every single psychology course I have taken has taught me that relationships are essential to human life; what my Take 5 year has taught me is how to nurture and satisfy that need more effectively.

Eastern Asian Immigration into the Americas

Peter Yen

My Take Five program is directly aimed at learning of Eastern Asian immigration into the Americas. In this, my classes were divided into three categories, each reflecting and supporting each other and continually surprising me with knowledge that piqued my interest even further. My first question was why were these immigrants coming to the Americas: what motives did they have to leave? The second question was, who were these people? Immigrant groups bring with themselves very unique characteristics. The last question was how they were immigrating over. These three questions are all interconnected within an overarching circle encompassing characteristics of immigrants themselves.

My Take Five program ended up taking a different path than I had originally intended; this was lucky because the path I did take seemed much more rewarding, as the classes that I took were better suited for my Take Five program. One of my first classes was *War & Migration*, which helped give foundation to answering why Eastern Asians were immigrating. *Chinese Society After Mao* also allowed me to look into the driving force behind Eastern Asian culture and insight into reasons to emigrate. Each of my classes was connected back to the concept of the Asian-American citizen. *War & Migration*, together with an independent study with Professor Hauser, introduced me to many great historical events such as the Chinese Exclusion Act (1882) and the Japanese-American Internment (1942). Answering the questions of who

were these immigrants expanded my understanding to the cultural and historical aspects of Asian-Americans. Learning of the journey many immigrants took to come to the Americas led to the final aspect of immigration, how this ties back into the Americas. I not only looked at the past Eastern Asian immigration trends and at contemporary times but also how these trends might affect the future. My program was very well-rounded and allowed me to incorporate the study of religion and language relating back to Eastern Asian immigration. Both were factors in the immigrant experience and formed a common denominator amongst many Asian-American immigrants.

My Take Five experience is an incredible learning experience that I am glad I partook in. With every class, my interest would advance greatly. My classes, which in discipline ranged from anthropology to linguistics, were all completely different from one other but all related deeply back to my Take Five theme. I would like to give a special thanks to all my professors and mentors that helped with my Take Five. It is quite an adventure to veer so far away from my major. With the guidance and enthusiasm of my professors, they made my Take Five classes an enjoyable journey.

A Panoramic Study of the Ancient World
Lauren Yu

The Take 5 Program offered through the University of Rochester is a very special opportunity that has enabled me to learn about and explore topics that I otherwise would not have been able to. The purpose of my Take 5 proposal, titled “A Panoramic View of the Ancient World,” was two-fold: to learn how to actively take part in decoding past civilizations through the means of archaeology and excavation, and to gain an overall understanding of the cultural attributes of Ancient Greece and Ancient Rome.

After having completed one semester in the Take 5 Program, and being partway through my second, I can say that I truly have gained a panoramic, multi-dimensional view of the ancient world. I began studying Ancient Greek (language) with the idea that I would learn the

basics and then move onto Latin. However, I found that I really loved Ancient Greek, the fluidity of it, the ability to recognize words in great works such as the *Odyssey* and so on, so that I decided to continue on with it and am hoping to get a chance to continue my learning of Ancient Greek in the future. Through Roman Religion and Classical Mythology, I now have a better understanding of the foundation of Greek and Roman theology, enabling me to have a better appreciation for these two cultures in general. In the classes Cultural Greece and Ancient Epic, I have learned more details about the daily lives of the Greeks, both through archaeological evidence and through ancient writings, expanding my total perspective of this civilization. And finally, in both Archaeology and Classical Archaeology, I have learned the various techniques used to interpret data and evidence from the past to create a small picture of the ancient world that has so widely influenced our society. I have learned everything that I set out to learn and more, as I now have an even greater appreciation and connection to the past than I originally imagined I would. I am so thankful to the University for supporting a program, which encourages studies in an area of interest, and has helped to make the community as well balanced and unique as it is.

The Preservation of Traditional Values in Modern Japanese Culture
Jacqueline Zaengle

When I began my Take Five project, I hoped to learn about how traditions were preserved into present day Japanese culture. Through my coursework and experience abroad in the spring of 2010, I have developed a deeper understanding of and appreciation for Japanese culture and especially for the Japanese people who make it thrive. I have also learned that traditions are not necessarily representative of the daily lives of people in the past, since they are only small pieces conserved while many other aspects of life are not incorporated into modern life. Although I am still fascinated by elements of the Japanese way of life that have been in existence for centuries, I am also interested in the lives and experiences of contemporary people.

While studying abroad in Chiba, I was able to experience Japanese culture firsthand for three and a half months. I rode the subways and trains everywhere, visited beautiful temples, attended cherry blossom festivals, sang karaoke, and ate delicious Japanese food. Through conversations with my host mom and Japanese friends, I gained insight into the perspectives held by many Japanese people. I never gave much thought to how I held my rice bowl at dinner, how to give a gift in a modest way, or that being “on time” in Japan actually means being five minutes early, but now I have incorporated these values into my own habits. Politeness and respect are cultivated in Japanese society, and these values are reflected in many aspects of a Japanese person’s demeanor.

In my classes this semester, I hope to learn more about the Korean population in Japan. I am also looking forward to expanding on the knowledge I gained while doing a field placement at an elementary school in Japan by researching the Japanese education system, particularly the differences between contemporary education at the elementary and high school levels. I also hope to explore how Shintoism, Buddhism, and Christianity have been integrated to varying degrees into Japanese society.

The Take Five program has given me an amazing opportunity to learn more about another culture I never would have explored otherwise. I am excited to continue learning about Japanese culture after I graduate and hope to visit Japan again in the near future.

***Journey through the Turn of the Century:
Exploring Architecture of Modernisme through History and
Perspective
Can Zhao***

Being a dual-degree student of Brain and Cognitive Sciences at the College and Piano Performance at Eastman, my educational career has revolved around two things: systematically thinking about our world through observation and experimentation, and transcendently conveying a message through the manipulation of sounds. These distinct

disciplines have made me into who I am but have also posed in my mind an aching question. Could there be a discipline or subject that embodies both the practical purpose of science as well as the aesthetic artistry of music? The answer is my Take Five thesis: Architecture, a composition of a culmination of artistry, science and practicality. My proposal focused on a specific architectural movement that highly acknowledges its artistic virtue aside from its historical relevance and practical purpose. And thus, my expedition began last semester when I journeyed through the Turn of the Century, exploring the Architecture of *Modernisme* period through its history and perspective.

Within a semester, Take Five has given me the opportunity in opening up my world in so many dimensions. Through different architectural works of the *Modernisme*, a Catalan artistic movement of the early 20th century, I re-experienced the history of Barcelona, I witnessed the combination of art and science, but most importantly, I gained perspective of the nation's culture and people. My courses tackled works of many *Modernisme* architects, such as *Domenech Montaner*, *Puig I Cadafalch*; but in particular, those works of *Antonio Gaudí*, who was the most significant representative and influential architect of *Modernisme* in Spain. Its natives consider Barcelona *Gaudí-land* because his works are a reminiscence of history, and a justification of the Catalan identity. Throughout my semester, I went on numerous field studies to many of his architectural masterpieces in Barcelona including *La Sagrada Família*, *Park Güell*, *La Pedrera*, and *Casa Batlló* just to name a few. I studied each work in detail, including the designing process, the historical relevance, and the method of construction, the inspirational story, and the architect's intention. These works in fact serve as symbols of the past, present and future of Catalonia.

I discovered that there is even more to Architecture than its synthesis of art, science and practicality. In fact, Architecture is an emblem of national identity: that is, it unites the forces and hearts of the nation in defining themselves as one. Catalan culture and its architecture are therefore inseparable because when the rest of the world views Catalonia, architecture is what comes to mind. In this sense, Architecture is a major part of what defines culture, but it is even *more* than that.

Architecture in Catalonia breaks limits of the norm; it acts as a portal to transmit messages to other nations, and it serves a defiance purpose against other nations. Needless to say, Catalans have always considered themselves as an independent nation; the *Modernisme* movement only fortifies their conviction in the everlasting fight for independence. One can only feel the impact that architecture has on society and people after seeing and studying it in detail. Moreover, I studied *Modernisme* on an international level because apart from Catalan *Modernisme*, I became acquainted with *Art Nouveau* in France, *Jugendstil* in Germany, and *Secession* in Austria, all equivalents of *Modernisme* in other parts of Europe.

This semester, because many of the classes I proposed to take are not offered, I'm gaining a more artistic and historical perspective of Architecture. Learning the roots of Architecture is nevertheless of crucial importance. This knowledge will come from of my Classic Archeology class. Furthermore, I'm studying Medieval and Renaissance Architecture, which is a predecessor to *Modernisme*. I cannot think of another subject that exceeds the knowledge, physics and practicality required for Architecture, the history, art, science, mechanics, and lifetime blood, sweat, heart and soul of mankind. Studying Architecture gave me a chance to understand the turning of abstraction and science into tangibility, as well as its formation of and connection with cultural identity. Through my eye-opening experiences in Barcelona, Take Five has really helped me in defining and redefining myself as a thinker and a maker, an idealist and a realist.

Music: Science and Composition

Nathan Zuk

Academically, I chose to come to the University of Rochester to study both Biomedical Engineering and Music. Rochester had an excellent BME curriculum and a well-known music school and department, and in coming to Rochester I hoped to delve into both subjects equally. Unfortunately as a Biomedical Engineering major, I had little time to devote to other academic pursuits. This fifth year gave me the freedom to explore music both on River Campus and at Eastman.

My program, *Music: Science and Composition*, focused on the understanding and creation of music. This included music theory, music composition, the science of music, and an independent study in music analysis using signal processing. For music theory I took Theory I and II on River Campus. My composition courses included Choral Arranging, Basic Orchestration, and three semesters of composition lessons where I wrote pieces for piano, four voices, and for a tap dancer. Additionally, I was able to study the science of music with Physics of Music, and Computer Applications in Music Research at Eastman. This year has allowed me to expand my musical horizons, my understanding of music both theoretically and scientifically, and my appreciation of its composition and performance.

The University of Rochester's Take Five Scholars Program is unique to higher education in America. The program allows students to enroll in courses outside their normal degree programs to enhance their educations. Selected students receive one or two tuition-free semesters to broaden or deepen their areas of study and supplement their regular course requirements.

Students may apply to the Take Five Scholars Program once they have been accepted into a major. A review board of faculty, administrators, and students meets once each term to weigh the intellectual merit of each proposal, and to admit new students to the program. Roughly sixty students are accepted each year, although there is no limit to the number of students accepted.

The program is not an extra year tacked on to the end of college. In their applications, Take Five Scholars propose specific courses of study, centered around central themes or ideas. Once accepted, they integrate these Take Five courses with the courses required for their degrees. The resources of the College, as well as those of the Eastman School of Music, the Margaret Warner Graduate School of Education and Human Development, the William E. Simon Graduate School of Business Administration, and the School of Nursing are all available to Take Five Scholars. In addition, some students study abroad.

By the time the students graduate at the end of their ninth semester or fifth year, they have expanded their intellectual horizons and broadened their perspectives. For some Take Five Scholars, their programs represent their only chance to study something in depth outside their majors. And for a few, their Take Five experiences profoundly alter their lives.

Since the program's inception in 1986, over 950 students have become Take Five Scholars. Currently, 100 students from the College and the Eastman School of Music participate in the Take Five Scholars Program. It is a program unique to the University of Rochester, designed to enrich an already first rate undergraduate education with additional opportunities to learn and grow.