Apr 28th, 1:30 PM - 7:00 PM

2017 Senior Symposium Program

Office of Undergraduate Research (OUR)

Follow this and additional works at: https://digitalcommons.oberlin.edu/seniorsymp

Recommended Citation
Office of Undergraduate Research (OUR), "2017 Senior Symposium Program" (04/28/17). Senior Symposium. 79.
https://digitalcommons.oberlin.edu/seniorsymp/2017/presentations/79

This Event is brought to you for free and open access by the Student Scholarship at Digital Commons at Oberlin. It has been accepted for inclusion in Senior Symposium by an authorized administrator of Digital Commons at Oberlin. For more information, please contact megan.mitchell@oberlin.edu.
SENIOR SYMPOSIUM
2017

A CELEBRATION OF THE SCHOLARLY AND ARTISTIC ACHIEVEMENTS OF THE CLASS OF 2017
FRIDAY, APRIL 28 | KING BUILDING
WELCOME

I am pleased to welcome you to the eighth annual Senior Symposium at Oberlin College and Conservatory. Today, you will have the opportunity to observe oral presentations given by 77 members of the Class of 2017 some short weeks before they graduate officially into the next stage of their lives.

Next month, I will be returning to my own alma mater to celebrate my college reunion. All those years ago, also just a few weeks before graduation, I was preparing for my own presentation of a project that I had spent my final undergraduate year imagining, developing, researching, and writing. At the time, though, neither the university I attended nor Oberlin had a campus-wide senior research symposium. Oberlin’s own Senior Symposium began in 2010 through the efforts of Randal Doane, Assistant Dean of Studies. The proliferation of events like this one at various institutions around the country since then is evidence that others in higher education are catching up to Oberlin, which has one of the longest-standing traditions of creative production and undergraduate research of any institution of its kind.

The projects you will learn about today—and the performances and exhibitions that will continue through the next three weeks—represent a selection of all the thought, discovery, analysis, and creativity that has been circulating at the College and Conservatory since this class first joined us on campus. Some of the students began their projects only this semester. Others started years ago in a course, a lab, a research fellowship, a studio, or a practice room. Some of the students only finalized their results last week. Others have been interviewing study participants for two years. In each case, their presentations will invite us into a site of their greatest expertise. Every student here, for having worked intimately with their subject matter, knows more about what they will share than most of us will ever know in our lives.

The 2017 Senior Symposium is sponsored by the Office of Undergraduate Research (OUR). For making this event possible, my thanks go to the quietly luminous Diana Tebo, OUR Administrative Assistant. One of the hallmarks of a job excellently done is that you do not perceive it has happened at all. Whatever seamlessness you may not even perceive this afternoon, then, is a testament to the outstanding quality of Diana’s work. I would also like to thank OUR student assistant Brian Smith ’20 for his efforts and enthusiasm and the Office of the Dean of Arts and Sciences for its support of and care for this event. Special thanks go to Bo Arbogast for the wealth of knowledge that he shared as the organizer of this event last year. Special thanks, too, go to Cortney Smith and Laurie McMillin in Rhetoric & Composition and to Speaking-Writing Associates Liam McMillin ’17, Sean Lambert ’17, Zoe Ginsberg ’17, Faith Shaeffer ’19, and Charlie Kimball ’18 for the effective public speaking workshop series they designed and taught for our presenters. My gratitude goes, in addition, to Kelly Viancourt, Emily Crawford, Ryan Sprowl, and Hillary Hempstead in the Office of Communications; to Wendy Brill in Printing Services; to Jessica Lear in the Registrar’s Office; and to Bethany Greenawalt in Catering Services. Thanks go as well to the course instructors and students who generously vacated their classrooms to make space today; to all the faculty and staff members who have volunteered their time to serve as panel moderators; and to the members of the 2016-17 General Faculty Committee on Undergraduate Research—Joyce Babyak, Jan Cooper, Jennifer Fraser, Gina Pérez, Pam Snyder, Marcelo Vinces, Clovis White, Rebecca Whelan, and Steve Wojtal—for the thought and creativity they put toward this event. Finally, and most importantly, I would like to recognize the project mentors and academic advisors who challenged and supported the students who will teach us about their projects today and in the coming weeks. What we learn from them is, in one way or another, what they have learned from you.

I hope that those of you presenting, performing, and exhibiting work can take a moment in this time, when “lasts” will speed by you one after another until Commencement, to appreciate what you have done. It can be a challenge, in a period of intense emotion and activity, to pause and reflect upon the difference between where you started and where you are now. My wish for you is that you be able to create opportunities for that kind of reflection. There is something here, in what you will share with us, that you finally understand better perhaps than you ever imagined you would want to. Now we will all understand it just a little better for having learned it from you.

Afia Ofori-Mensa
Assistant Dean and Director of Undergraduate Research
Schedule

All events take place in the King Building, 10 North Professor Street, Oberlin, Ohio.
Panel 1 · **ANTI-BLACK | RACISM** · King 323

*Moderator: RaShelle Peck, Faculty in Residence, Afrikan Heritage House*

**Julian Geltman**  
Rethinking Redevelopment: New Urbanism, Neoliberalism, and Sustainable Urban Design Initiatives in Cleveland, Ohio

**Aliyah Abu-Hazeem**  
Deconstructing Hypermasculinity: Combatting the War on Black Men

**Kaia Diringer**  
Ninety Seconds in Charleston: How Historical Memory and Myth Sustain Racial Inequality in America

**Natalie Ventura Villasana**  
Violence in the Feed: Accelerated Productions and Circulations of Police Brutality Videos

Panel 2 · **APPLIED | MUSIC** · King 327

*Musical Studies Capstone Panel*

*Moderator: Ben Geyer, Visiting Assistant Professor of Music Theory*

**Vikram Shankar**  
Symphonies of Horror: Musical Experimentation in Howard Shore’s Work with David Cronenberg

**Grover Neville**  
The Sonification of Money: Applying Creative Innovation in the Music Industry

**Gabrielle Kaufman**  
The Impact of Music Education on Language Development

**Khalid Taylor**  
Grooves on the Mind: The Call for Music Therapy Practices Applicable to Communities of Color

Panel 3 · **ARTISTIC | TRANSFORMATIONS** · King 321

*Moderator: Jan Cooper, John Charles Reid Associate Professor of Rhetoric & Composition*

**Christiana Rose**  
Flight, Musical Expression and Virtuosity

**Sam Goree**  
Towards a Relative-Pitch Neural Network System for Chorale Composition and Harmonization

**Alex Wilder**  
Responsible Songwriting: Problems of Ethics and Negotiation in Collaborative Autoethnographic Composition

**Andres Cuervo**  
Imagine Trees Like These — A Virtual Reality Narrative concerning Forests, Futurity, and Ephemerality
Panel 4 · CURATION | CLASSIFICATION · King 341

Moderator: Mir Finkelman, Curatorial Assistant at the Allen Memorial Art Museum

Alice Blakely and Cori Mazer
Documenting Oberlin’s Native Arctic Collection

Taylorlyn Stephan
What’s in A Neanderthal: A Comparative Analysis

Elana Bell
Re-Contextualizing the Object: Fred Wilson’s Wildfire Test Pit and the Semiotics of Museum Labels

Panel 5 · GERMAN | AESTHETICS · King 335

Moderator: Steve Huff, Professor of German

Serena Creary
Musical Translation: The Translation and Transformation of an Eighteenth-Century German Play into a Modern Opera

Maurice Cohn
Judaism Despite Modernity: Schoenberg and the German Tradition

Sean Lambert
Shock Therapy: Horror Aesthetics in German Modernism

Panel 6 · LORAIN | COUNTY · King 343

Community-Engaged Research Panel

Moderator: Gina Pérez, Professor of Comparative American Studies

Leah Awkward-Rich
“Head Start Works,” but Why?: Understanding the Persistence of an American Welfare Program

Natalie Hartog
Collaborative Resource Sharing between the Prospect Elementary School Library and the Oberlin Public Library

Nick Rowan Bassman
Poetry by Langston: Lessons Taught and Learned through Writers-in-the-Schools (WITS)

Rachel Leader
Nurturing a Community of Trust and Resilience: Coalition Building and Faith-Based Organizing at El Centro

Panel 7 · POLITICAL | STORIES · King 325

Moderator: Joyce Babyak, Dean of Studies and Professor of Religion

Rachel Sacks
Fearless Foreign Women: Exploring Tamar and Ruth as Characters within a Post-Exilic Debate on Intermarriage

Emma Snape
Goddess Killing: The Combat Myth and Politics in the Revelation of John
ORAL PRESENTATIONS SESSION II · 3:00-4:20 PM

Panel 8 · LITERARY | COMPARISONS · King 321

Moderator: Jed Deppman, Professor of Comparative Literature and English

Jackie Milestone
Transformation through Installation: Portraying Ovidian Metamorphoses via Multimedia

Eleanor H. Van Buren
‘Reading’ the Tracking Shot in Nadja and Marienbad

Daniel West
Georges Bataille: A Body in Motion

Zoe Ginsberg
Consider the Mantis Shrimp: Semiotics and Authorship in Italo Calvino’s If on a winter’s night a traveler

Panel 9 · MUSICAL | GENRES · King 341

Musical Studies Capstone Panel

Moderator: Ben Geyer, Visiting Assistant Professor of Music Theory

Lily Johnson
The Problem of Genre in Opera and Musical Theater

Perry Maybrown
A Journey through the Forest: The Evolution of Concept Albums and Song Cycles

Isaac Pearl
Experiential Composition: An Exploration of Virtual-Environmental Music

Sam Goree
Structure and Randomness in Iannis Xenakis’ Analogique A

Panel 10 · NATURAL | RESILIENCE · King 343

Moderator: Keith Tarvin, Chair & Professor of Biology

Kirk Pearson
Experimental Biomechanics on Trinucleid Fringe Pits (Trilobita)

Maxwell Butler
Volatile Components of Preen Gland Secretions and Community-Level Interactions in Disease Transmission
Marie Lilly
Bird Chatter as an Indicator of Safety: To What Extent Do Eastern Gray Squirrels Rely on Public Information?

Liv Scott
Lessons in Resilience: From Biological Systems to Human Food Systems

Panel 11 · SUSTAINABLE | PRACTICES · King 323

Moderator: Cindy Frantz, Professor of Psychology and Environmental Studies

Jacob Turner
Including Interstellar Scattering Effects in Pulsar Timing

Kai Shinbrough
Infrared and Thermal-Desorption Spectroscopy of Hydrogen in Metal-Organic Frameworks

Lauren Rhodes and Abigail Carlstad
Community-Based Social Marketing Research: Sustainable Behavior Change in Oberlin

Panel 12 · SWITCHING | DISCOURSE · King 327

Moderator: Jason Haugen, Assistant Professor of Anthropology

Brendan Nuse
The Endangerment Turn: Tracking the Transition of Vegetarian Discourse in Contemporary China

Mattea Scheiber Koon
Investigating Allomorphy in a Coordinating Conjunction: A Corpus Study of Hiaki (Yaqui) Into(k(o))

Sophie Pierson
Codeswitching in Hiaki Conversational Discourse: An Evaluation of Myers-Scotton’s Matrix Language Frame Model

ORAL PRESENTATIONS SESSION III · 4:30-5:50 PM

Panel 13 · ARCHAEOLOGICAL | STUDIES · King 335
Archaeological Studies Senior Project Panel

Moderator: Amy Margaris, Associate Professor of Anthropology

Shelby Raynor
Granary C113 from Karanis: A Case of Misidentification

Scott Russell
The Role of Millet in Pre-Roman Italy

Lucas Brown
Hydrology and Terracing in the Monte Pallano Area of Abruzzo, Italy

Maggie Gossiaux
Mapping Miikt’sqaq Angayuk: A GIS Analysis of a Nineteenth-Century Sod House
Panel 14 · ART | IDENTITY · King 321

Moderator: Jennifer Fraser, Associate Professor of Ethnomusicology

Noah Margulis
Depth of Field: Giovanni di Paolo’s Landscapes in Fifteenth-Century Siena

Juan Omar Rodriguez
Articulations of Mestizaje in Early Twentieth-Century Mexican Art

Julian Cranberg
“Urban Provincianos”: La Música Chicha and Cultural Identity in 1970s and 1980s Lima, Perú

Kristin McFadden
“It’s a Boys’ Club, Isn’t It?”: One Dimensionality in Portrayals of the Female Rocker

Panel 15 · BLACK | AUTHORSHIP · King 339

Moderator: Gillian Johns, Associate Professor of English and Africana Studies

Samuel Mellman
Barbershop Quartets and American Popular Music

Alexandra Nicome
Who is Neotraditional?: Visualizing Postcolonial Identities in J. D. ‘Okhai Ojeikere’s Hairstyles Photographs

Natalia Shevin
“We Need Not Weep Alone”: Evelyn C. White’s Vision of a World Where Black Women are Free

Anthony Moaton
To Make You Feel Something: Analyzing Branden Jacobs-Jenkins’s An Octoroon

Panel 16 · MARGINALIZED | COMMUNITIES · King 341

Moderator: Greggor Mattson, Director of Gender, Sexuality & Feminist Studies and Associate Professor of Sociology

Maddie Batzli
At the Edges of Queer: Navigating Ambiguity, Community, and Erasure

Al Nadeau-Rifkind
Between and beyond the Binary: Gender Pronouns and Community Support

Tory Sparks
“This is a Closed Space for Queer Identifying Folx”: Queer Spaces on Campus

Melissa Cabat
“Interrogating the And”: A Study of Environmentalism and Disability

Panel 17 · OBERLIN | COLLEGE · King 323

Moderator: Clovis White, Associate Professor of Sociology and Africana Studies
Zach Moo Young
Oberlin College Hoops: Sport and Diversity in Higher Education

Jeeva Muhl
Dignity and Dining Halls: Relations of Power in Oberlin Labor

Xavier Tirado
Pathways in and out of STEM: An Exploration of School Structure and Its effects on Underrepresented Minorities at Oberlin College

Panel 18 · RELIGIOUS | PHILOSOPHIES · King 327

Religion Capstone Panel

Moderator: Cheryl Cottine, Assistant Professor of Religion

Jacob Roosa
Voices from the Forge: Work, Space, and Communication in Early Cistercian Monasticism

Liam McMillin
Who Is “The Scholar”? or, Looking for Truth with Emerson

Hunter Zepeda
Gustavo Gutiérrez’s Liberation Theology: A Hermeneutic of Utopian Hope

Noah Last
By Any Genes Necessary: Enlightened Self-Interest in Soren Kierkegaard’s Works of Love

Panel 19 · RUSSIAN | NARRATIVES · King 325

Moderator: Arlene Forman, Chair & Associate Professor of Russian & East European Studies

Walker Griggs
Inadvertent Naturalists: Turgenev, Aksakov, and Russia’s New Ornithology

Lillian Posner
"And There in the Postwar Silence": Olga Berggolts and Postwar Soviet Subjectivity, 1945-1954

Sarah Chatta
The Vagrant: Where the Soviet Love of Bollywood Began

Ian Gilchrist
The Underground Soviet: Shaping Soviet Culture in the Leningrad Metro

Panel 20 · WATER | HEALTH · King 343

Moderator: Marcelo Vinces, Director, Center for Learning, Education, and Research (CLEAR) in the Sciences
Associate Director, Center for Teaching Innovation and Excellence (CTIE)

Alejandro Vera
Synthetic Melanin Filtration Agents

Emily Curley
Investigating the Effects of Antide Treatment on the Preventative and Restorative Effects of Hippocampal Damage in Alzheimer’s Disease Rats

Naviya Schuster-Little
Optimization of Emulsion PCR for Aptamer Selection

Elisa Casado Henderson
Does Position along the Watershed Affect Hybridization Dynamics between the Native Orconectes sanbornii and Invasive O. rusticus?

RECEPTION · 5:50 - 6:15 PM · KING THIRD FLOOR LOUNGE

CLOSING KEYNOTE · 6:15 - 7:00 PM · KING 306

Whipped Cream, Whiskey, and Weight Loss: Exploring the Versatility of E-cigarette Use in Adolescents and Adults
Meghan Morean, Ph.D. and Alexa L’Insalata ‘17
Keynote

Talk description and bio of keynote speakers
Whipped Cream, Whiskey, and Weight Loss
Exploring the Versatility of E-cigarette Use in Adolescents and Adults

E-cigarette use increasingly is popular among American adolescents and adults. “Vaping” often is advertised as a less dangerous alternative to smoking or as a smoking cessation tool, but individuals vape for a wide variety of reasons that are not related to smoking. During this keynote address, Dr. Morean and Ms. L’Insalata will discuss their collaborative research that highlights the role that e-liquid flavors (e.g., fruits, desserts, mint) play in driving e-cigarette use in adolescents and adults. They also will discuss their novel work on alternative, “off-label” uses for e-cigarettes including vaping for weight loss. Data will be presented from completed studies of healthy adolescents and adults and from a newly collected sample of adults who have been diagnosed with an eating disorder (e.g., anorexia, bulimia).

Dr. Meghan Morean is an Assistant Professor of Psychology at Oberlin and an adjunct Assistant Professor of Psychiatry at the Yale School of Medicine. She earned her undergraduate degree in psychology from Brown University and her doctoral degree in clinical psychology from Yale University. Dr. Morean conducts research on substance use, with foci on alcohol, cannabis, and nicotine. She is an author on 40 peer-reviewed journal articles and over 60 conference presentations. Dr. Morean and Ms. L’Insalata have co-authored one published scientific paper together and have three more in the works. They also have collaborated on five conference posters.

Ms. Alexa L’Insalata ‘17 is a student-athlete (captain of the women’s lacrosse team) and Psychology major who will graduate with honors this May. Ms. L’Insalata plans to pursue graduate studies in clinical psychology. Completing winter term and summer research internships at the UCSD Eating Disorder Center for Treatment and Research sparked her passion for studying eating disorders. Ms. L’Insalata has collaborated with Dr. Morean for three years and successfully was able to combine her research interests in eating disorders with Dr. Morean’s interests in substance use for her Senior Honors Thesis.
Abstracts

Alphabetical listing of presenters by student’s last name
Aliyah Abu-Hazeem  
SOCIOLOGY and LAW & SOCIETY  
Mellon Mays Undergraduate Research Fellowship  
Summer Research Training Program, University of Chicago

Academic Advisor: Greggor Mattson, Sociology  
Project Mentor: Clovis White, Sociology

Deconstructing Hypermasculinity: Combatting the War on Black Men

Images of Black men have historically and contemporarily been linked to connotations of bestial, contemptuous, aggressive, predatory, and violent otherworldly entities. These conceptions of Black men are being sensationalized in the news and distorted within history books. Similarly, much of the existing sociological scholarship on gun violence in urban, impoverished communities of color has delineated Black men as lawless, inhumane, and unsalvageable. Scholars have concluded that these Black men’s ‘unusual proclivity’ to gun violence can be linked to deviant notions and reproductions of masculinity. However, these sweeping narratives of hypermasculinity disregard the social milieu that fosters Black men’s engagement in gun violence. The social context is an important point of contention as it is causal to the success outcomes, or lack thereof, that Black men are afforded with. As this research will make clear, a scarcity in the availability of resources directly impacts Black men’s need to improve their livelihood— even by deviant measures. This research project will explore three key variables of social context: wealth disparity, social disorder, and the neighborhood climate that surround Black men living in Chicago’s urban, gun-stricken communities. Through isolating and exploring these factors, insights on the rationale(s) behind Black men’s disproportional involvement in gun violence will be interrogated.

Leah Awkward-Rich  
SOCIOLOGY and COMPARATIVE AMERICAN STUDIES

“Head Start Works,” but Why?: Understanding the Persistence of an American Welfare Program

Head Start, a federally-funded preschool program for low-income children which also provides social services to parents, has persisted since its founding in the 1960s. The program has also received consistent public support since its implementation. Head Start’s popularity makes it unique in comparison to other welfare programs in the country. The United States’ welfare state is weak and underfunded when compared to those of similar countries; the US lacks a comprehensive national welfare system, and the existing system exacerbates inequalities based on gender and race. Despite the lack of support for welfare services, Head Start continues to serve children and families across the country. Head Start programs are available in every state, and 1,000 local agencies provide services to over 1 million children and their families yearly. The program has been shown to increase academic and social outcomes for low-income children well past the preschool years, and continues to endure in communities like Lorain County. I present the findings from 15 interviews with parents, preschool program and Head Start administrators, and coordinators of community agencies that collaborate with Head Start. I find that Head Start has persisted in Lorain County due to its adaptability to county-specific challenges surrounding the lack of public transportation, its degree of embeddedness in the community due to organizational ties, and its adherence to the growing prioritization of academic preparation for kindergarten during preschool. I conclude by suggesting future research to better understand the link between welfare services and public transportation, and by making policy recommendations.

Nick Rowan Bassman  
CREATIVE WRITING

Academic Advisor: David Walker, Creative Writing and English  
Project Mentor: Lynn Powell, Creative Writing

Poetry by Langston: Lessons Taught and Learned through Writers-in-the-Schools (WITS)

There is a common misperception that kids are not ready to speak or write about their life experiences, “real world issues,” or nuanced literature. Nothing could be further from the truth. My work teaching poetry to seventh graders at Langston Middle School through the Writers-in-the-Schools (WITS) program, with the guidance of Lynn Powell, seeks to introduce middle schoolers to a poetic education driven by lived experience rather than unrelatable abstraction. We dig into what really makes great poetry come alive, and write our
own poems as a way of speaking out in the face of misunderstanding, testing boundaries, processing emotions and histories, and expressing wonder at the world we live in. With three anthologies of writing by my students at Langston, along with the poems and lesson plans that inspired them, I hope to convey the necessity of intuitive arts education.

Maddie Batzli
GENDER, SEXUALITY & FEMINIST STUDIES and SOCIOLOGY

Academic Advisors: Greggor Mattson and Christie Parris, Sociology
Project Mentors: Greggor Mattson, Sociology; Patrick O’Connor, Hispanic Studies and Comparative Literature; Margaret Kamitsuka, Religion; Vange Heiliger, Comparative American Studies

At the Edges of Queer: Navigating Ambiguity, Community, and Erasure

When the word “queer” took the world of AIDS activism and the academy by storm in the late twentieth century, activists and academics leapt to understand and define this reclaimed word and predict its trajectory. Some academics claimed that queer would avoid obsolescence, remaining an anti-assimilationist beacon for activists, while others worried that lumping anyone with non-normative sexualities or lifestyle practices under the same umbrella would inaccurately homogenize disparate groups and detract from specific causes. This study aims to understand the meanings of the word queer among students at Oberlin College today, over a quarter century after the beginning of the word’s reclamation. Through semi-structured in-depth interviews, I asked 17 non-heterosexual or non-cisgender students to describe their relationships with and perceptions of the word queer at their college and in other places they’ve lived. I interviewed several Case Western Reserve University students to better understand how current uses of queer in Oberlin are particular to this time and place. Through this study, participants revealed that multiple and ambiguous uses of queer facilitate more inclusive and nuanced understandings of gender and sexuality, particularly making room for non-binary gender identity and sexual fluidity, while simultaneously producing implicit boundaries that reinforce dynamics of privilege and marginalization present within mainstream U.S. society.

Elana Bell
ART HISTORY and VOICE PERFORMANCE

Academic Advisor: Erik Inglis, Medieval Art History; Lorraine Manz, Voice
Project Mentor: Sarah Hamill, Art History

Re-Contextualizing the Object: Fred Wilson’s Wildfire Test Pit and the Semiotics of Museum Labels

My research explores how artist Fred Wilson manipulates the traditional form of the museum label in his Allen Memorial Art Museum exhibition, Wildfire Test Pit. Throughout his career, Wilson has been a pioneer in the field of institutional critique, curating exhibitions in museums across the country that make explicit the problematic narratives of power that these institutions perpetuate. In Wildfire Test Pit, the artist uses unconventional and intentionally confusing object labels and wall texts to both decontextualize and re-contextualize objects from the AMAM’s collection. I show how Wilson addresses the ideological space between object and viewer, making the case that traditional museum practice can drastically change the categorization, and therefore the hierarchy of objects in the eyes of the institution’s visitors. Beyond acknowledging Oberlin’s particular history, the exhibition offers a model of how museums might display the stories of cultures and individuals through a postmodern and inter-textual approach to traditional systems of classification.

Alice Blakely
ARCHAEOLOGICAL STUDIES

Cori Mazer
ARCHAEOLOGICAL STUDIES

Academic Advisor and Project Mentor: Amy Margaris, Anthropology

Documenting Oberlin’s Native Arctic Collection
We are exploring a group of 36 cultural objects in the Oberlin College Ethnographic Collection. Collected by naturalists in the late 19th century, the objects hail from Native communities across Alaska and Canada, and made their way to Oberlin College through an exchange with the Smithsonian Institution in 1889. The goal of this research is to document each of the objects (through photography and writing preliminary condition reports) and research their cultural contexts in advance of a planned future physical exhibition on Oberlin’s campus. Our project will culminate in a digital exhibition where students, scholars, and Native communities may view a selection of the objects. The knowledge gained through our research will greatly enhance the information Oberlin has on these special objects and also make them more accessible to the public.

Lucas Brown
ARCHAEOLOGICAL STUDIES and GREEK LANGUAGE & LITERATURE

Academic Advisor: Drew Wilburn, Archaeological Studies
Project Mentor: Amanda Schmidt, Geology

Hydrology and Terracing in the Monte Pallano Area of Abruzzo, Italy

This project explores the effects that terracing has on the hydrology of the Monte Pallano area of Italy. This area has been inhabited for thousands of years and is the current site of the Sangro Valley Project. Ancient terraces that the Pre-Roman (Samnite) and Roman people created as flat areas to build on and farm are common in the study area. The effects of the terraces on the local hydrology up until now were unknown. In order to discover this, I used two elevation models to create two sets of watersheds. One of the elevation models was acquired from Jamie Countryman (OC ‘12), the other I created using elevation and location data of surveyed terraces. After I delineated watersheds in ArcGIS, I found that six watersheds are different with the terraces included. These findings show that terracing had a significant effect on the local hydrology, especially because the data only accounts for a limited number of terraces. However, my model was limited in that it only accounts for found terraces when there are many still unknown, also the way terraces were created they act more like walls than actual terraces. Additionally, other studies find that terraces would reduce the slope angle leading to increased infiltration and moisture retention as well as decreased erosion allowing for better farming.

Maxwell Butler
BIOLOGY

Academic Advisor: Mary Garvin, Biology
Project Mentors: Mary Garvin, Biology; Rebecca Whelan, Chemistry & Biochemistry

Volatile Components of Preen Gland Secretions and Community-Level Interactions in Disease Transmission

The transmission of the mosquito-borne West Nile virus (WNV) among birds is dependent on the ability of the mosquito vector to locate and feed upon the avian host. A number of birds acquire WNV infections and serve as natural reservoirs of the virus, however American Robins are believed to be the most important. The reason for this preference is not known. Chemical analysis of the volatile components of the preen gland secretions of American Robins and two other common WNV reservoir hosts, House Sparrows and European Starlings, conducted by Whelan and Austin reveal species-specific volatile profiles. We hypothesized that the Culex pipiens (Cx. pipiens) mosquito WNV vector is preferentially attracted to American Robins over the other two species and that this attraction is based on the mosquito’s preference for the volatiles emitted from the robin preen gland. We conducted mosquito choice trials using an olfactometer to test the predictions that 1) Cx. pipiens is preferentially attracted to American Robins over House Sparrows and European Starlings and 2) Cx. pipiens is preferentially attracted to preen gland secretions of American Robins over those of the other two species. We found that Cx. pipiens is more often attracted to live robins over sparrows; however, we found no preference for robin preen gland volatiles over those of sparrows. Surprisingly, we found that Cx. pipiens is more often attracted to starlings over robins and to the volatile components of starling preen gland secretions over those of robins.

Melissa Cabat
ENVIRONMENTAL STUDIES

Academic Advisor: T.S. McMillin, Environmental Studies
"Interrogating the And": A Study of Environmentalism and Disability

This paper explores the relationship between environmentalism and disability rights through multiple lenses. People with disabilities are often not given equal access to nature; the controversy about paved roads in national parks provides valuable insight into the connection between environmental justice and disability justice. Examining the attitudes of mainstream environmental activists provides a perspective on the two group's sometimes differing priorities. These activists often focus more narrowly on the correlation between environment and disability as being a matter of public health inequities, including air quality, pollution, and, more recently, the aftereffects of hydraulic fracturing. The recent history of climate activism serves as a useful case study for the interaction of disability activists and the larger environmental justice community. The Crips for Climate Justice movement, for example, reflects how climate justice and disability justice have long been intertwined. In addition, the relational dynamic between the disability and environmental communities is especially timely as the baby boomer population—which gave birth to the modern environmental movement—ages and faces obstacles to accessing their longstanding connection to nature. Moreover, discussing disability justice and environmental justice together in this growing field sets a precedent for inclusion of all groups in environmental justice, both on the university level and beyond.

Sarah Chatta
RUSSIAN STUDIES and CREATIVE WRITING
Middlebury School in Russia, Moscow

The Vagrant: Where the Soviet Love of Bollywood Began

The Indian Film Festival that took place in Moscow in 1954 has been deemed the moment when “Indian cinema conquered the Soviet Union.” Among the four featured films, Awaara (translated into Russian as Brodjaga) achieved astonishing success, garnering more viewers than any other film, foreign or domestic, over the next decade. Brodjaga would be replayed in theaters across the USSR in 1959, 1965, 1977 and 1985, and people would name their children after the film's stars Raj Kapoor and Nargis. My research, which incorporates interviews I conducted in Russia in 2016, focuses on the film that laid the foundation for a long Soviet love-affair with Indian cinema. I argue that audiences were able to relate events in Brodjaga to their own brutal history under Stalin, and thus, their response to Brodjaga amounted to an act of mass mourning.

Maurice Cohn
HISTORY and CELLO PERFORMANCE

Judaism Despite Modernity: Schoenberg and the German Tradition

The relationship between Jews and European classical music has always been particularly complex. Jews have been both foundational and forbidden from the European canon, their artistic importance dictated by the politics of culture and turns of history. However, the way we think about Jews and “Jewish music” often obscures ideological questions in favor of the purely sonic experience of the contemporary listener. This problem becomes especially acute in the case of Arnold Schoenberg. Born in Vienna in 1874, Schoenberg eventually left for Berlin in the 1920s and, with the rise of Nazism, Los Angeles in the 1930s and 1940s. It is of course impossible to understand Schoenberg, considered the inventor of musical modernism, without discussing his Jewishness. However, the way we understand the relationship between Schoenberg and Judaism matters. He was not simply inserting “Jewish melodies” into a German musical framework, as is sometimes said of composers such as Felix Mendelssohn. On the contrary, Schoenberg was deeply engaged with the competing intellectual currents of his time. This presentation looks at Schoenberg’s intellectual community, specifically his connections to the Jewish philosopher Franz Rosenzweig, the modernist Ludwig Wittgenstein, and the architect and aesthetic theorist...
Adolf Loos. Understanding the questions that concerned Schoenberg—about politics, culture, history, and art—gives a more robust account of the relationship between Schoenberg’s Judaism and his music.

Julian Cranberg  
**LATIN AMERICAN STUDIES**  
Selch Fellowship, Frederick R. Selch Center for the Study of American Culture

---

**Urban Provincianos**: La Música Chicha and Cultural Identity in 1970s and 1980s Lima, Perú

Can music help a community define its identity? “La música chicha”, a genre of Peruvian music that arose in the 1970s, began when indigenous migrants to Lima fused the Huayno melodies from their highland communities with the Colombian cumbia rhythm. Researching in Lima, I examined print sources, conducted interviews with musicians and academics, and attended concerts. I also analyzed song lyrics and public performances as two manifestations of cultural expression in Lima’s working-class barrios. I conclude that Chicha helped unite many around their shared identity as impoverished, working-class, migrant campesinos now living together in a large city. Chicha is an excellent case study of what Pablo Vila calls the "[importance of] popular music in the process of identity construction [in Latin America]."

Serena Creary  
**COMPARATIVE LITERATURE and MUSIC COMPOSITION**

---

**Musical Translation: The Translation and Transformation of an Eighteenth-Century German Play into a Modern Opera**

This presentation will describe Creary's process as she wrote the first English translation of Theodor Gottlieb von Hippel's *Der Mann nach der Uhr, oder der ordentliche Mann*, an 18th-century German play about a strict father who disapproves of his daughter's suitor. Specifically, Creary will outline the challenges of adapting a play with outdated ideology for performance today. Along these lines, Creary will focus on Hippel's progressive beliefs about women of his time. Finally, she will describe the process of turning this play into an opera libretto.

Andres Cuervo  
**CREATIVE WRITING and COMPUTER SCIENCE**

---

**Imagine Trees Like These — A Virtual Reality Narrative concerning Forests, Futurity, and Ephemerality**

A narrative is often shaped by the medium it occupies. We understand this somewhat intuitively as we watch popular works cross forms: books may turn into movies, some movies inspire video games, and the experience of each piece is wholly unique even though their texts may be identical. New technology presents new questions for what is possible with narratives in this respect — in other words, what their visuals, capacity for interactivity, or unique properties hold for storytelling. Virtual reality is one such new technology and this project attempts to explore how its immersiveness can help us navigate a complex and abstract narrative. The piece draws on a wide range of influences including interactive websites, augmented and virtual reality art pieces, graphic novels, and generative text-based games. Using the web programming framework A-Frame, 3D sculpting and rendering software, and 360° photography, "Imagine Trees Like These" is at once a command and an invitation for exploration.
Emily Curley
NEUROSCIENCE
Robert Rich Student Grant

Investigating the Effects of Antide Treatment on the Preventative and Restorative Effects of Hippocampal Damage in Alzheimer’s Disease Rats

After menopause women are more likely to develop Alzheimer’s disease (AD) than men. This predisposition is due to the drop in estrogens (E) that occurs following menopause. This drop in neuroprotective estrogens is accompanied by a rise in luteinizing hormone (LH). Elevated LH has been associated with decreased performance on cognitive tasks as well as loss of memory, and the development of AD. Prior work in the Thornton Lab has utilized Antide, a GnRH antagonist, to decrease the production of LH in an AD rat model. By infusing small doses of neurotoxins Beta-Amyloid and ibotenic acid into the dorsal hippocampus, a brain region critical for learning and memory, we are able to produce a rat model, displaying early stages of AD. We are presently testing whether lowering LH with Antide can decrease cognitive defects and/or damage to neurons when administered either prior to or following neurotoxin infusion. We will use immunocytochemistry for NeuN, a marker for neurons, to examine the number of neurons in animals that received Antide treatment just before or following neurotoxin infusion to investigate the potential for preventative as well as restorative effects of Antide treatment on memory and cell death associated with AD. Although E has neuroprotective effects, E replacement therapies heighten the risks of ovarian, breast, and other forms of cancer. If targeting LH effectively reduces the neuronal damage associated with AD, this could introduce a safer way to treat post-menopausal women in either a preventative or restorative manner to combat early signs of AD.

Kaia Diringer
HISTORY
Artz Grant
Jerome Davis Research Grant

Ninety Seconds in Charleston: How Historical Memory and Myth Sustain Racial Inequality in America

On June 17, 2015, white supremacist Dylann Roof walked into Mother Emanuel AME Church and murdered nine black parishioners. Forty-eight hours later, the victims’ families granted Roof their forgiveness, and white Americans seemed to breathe a collective sigh of relief. In the midst of a renewed national debate over racial inequality, unity appeared to have won out in Charleston. Drawing on key primary sources and scholarship on American historical memory and justice, this research examines the historical legacies that shaped Dylann Roof’s ideology, the families’ immediate forgiveness, and the failure of America to fully claim the burden of its past. A central focus is the tension between necessary remembering and willful forgetting – the power of unaddressed history to infect a community and its society.

Jordan Ecker
POLITICS

Thomas Paine’s (Un)Common Sense and the Politics of Disagreement

In my senior honors project, I juxtapose a tradition of using the phrase ‘common sense’ to cover up radical disagreement within politics with Thomas Paine’s radical use of the phrase in his incendiary 1776 pamphlet, Common Sense. Working from the basic premise that politics is constituted by disagreement, not agreement, I argue that Paine’s common sense orients us towards lines of disagreement instead of searching for an already existing consensus. I contrast Paine’s common sense with an 18th century Whiggish common sense, which I also see as operative in the political philosophy of John Rawls and Hannah Arendt. Once I have established Paine’s decisive break with this tradition of common sense, I attempt to read Paine as a repressed radical who has more in common with contemporary radicals such as Jacques Ranciere and Louis Althusser, than the liberal tradition he is typically read within the paradigm of.
Julian Geltman
ENVIRONMENTAL STUDIES

Academic Advisor: Md. Rumi Shammin, Environmental Studies
Project Mentors: Md. Rumi Shammin, Environmental Studies; Peter Minosh, Architectural History; Greggor Mattson, Sociology

Rethinking Redevelopment: New Urbanism, Neoliberalism, and Sustainable Urban Design Initiatives in Cleveland, Ohio

This article explores unintended consequences that result from recent urban design initiatives in Cleveland, Ohio. Historically rife with environmental injustice issues, Cleveland’s built environment continues to exhibit problems of distributive justice across racialized spaces. In this research project, I first establish a lens through which I scrutinize New Urbanist aesthetics as those geared towards the white spatial imaginary, deconstructing its whiteness in the process. I seek to answer: is New Urbanism inherently racist? I then explore how New Urbanism in the U.S. has spread into circles of sustainable urban design, pushing space and place towards a homogenized normativity. Third, I examine the history of racial prejudice in urban planning in Cleveland. Lastly, I analyze census data surrounding neighborhoods in which sustainable urban design initiatives have been implemented or are underway. In analyzing how these neighborhoods are changing as a result of these initiatives, I look for the presence of New Urbanist aesthetics or the realization of some their principles and theory. I hope to uncover some of the indirect effects of projects deemed sustainable. The purpose of this project is to look critically at initiatives that are gauged as sustainable, widening the discussion of sustainability in planning and architecture to encompass economic and social factors, not merely environmental ones.

Ian Gilchrist
HISTORY and RUSSIAN & EAST EUROPEAN STUDIES

Artz Grant
Jerome Davis Research Grant

Academic Advisors: Annemarie Sammartino, History; Arlene Forman, Russian & East European Studies
Project Mentors: Annemarie Sammartino, Christopher Stolarski and Len Smith, History

The Underground Soviet: Shaping Soviet Culture in the Leningrad Metro

This thesis examines the first line of the Leningrad metro System, opened in 1955, and its representation of the Soviet state in the wake of the Second World War. Like its older sibling in Moscow, built in the 1930s, the Leningrad metro served both symbolic as well as pragmatic purposes. Its stations offered passengers a palatial splendor formerly reserved for royalty; marbled floors, artwork, and chandeliers adorned high-ceilinged stations, exemplifying the state’s benevolence. These stations crafted a narrative of Soviet history, while simultaneously stating the country’s progress on its path towards communism. In this paper, I examine the Leningrad metro as part of a larger project of post-war reconstruction, striving to rebuild both the physical and ideological landscape of the war-ravaged Soviet Union. Leningrad experienced a dramatic surge in migration, bringing new residents to the city, unskilled and uneducated in urban socialist life. Simultaneously, party policy shifted, at least outwardly, towards greater material welfare for citizens, resulting in increasingly private forms of living. I argue that within this project of reconstruction, the metro operated as an agent of integration between state and citizen, inserting state narratives into the everyday lives of passengers, while also directing the ways in which they moved through the city. The metro ritualized the transition between public and private spheres, guiding passengers through reflective spaces that honored culture, history, and industry. By travelling through their everyday lives, citizens rehearsed and cemented a state-sanctioned narrative of living, behaving, and remembering as proper Soviet citizens.

Zoe Ginsberg
ENGLISH and HISTORY

Academic Advisors: Laura Baudot, English; Clayton Koppes, History
Project Mentor: Wendy Hyman, English

Consider the Mantis Shrimp: Semiotics and Authorship in Italo Calvino’s If on a winter’s night a traveler
This paper explores the production of literary meaning in Italo Calvino’s "If on a winter’s night a traveler." This novel describes a second-person narrator’s (nicknamed “the Reader”) journey through ten different manuscript segments as he tries to read the new book "If on a winter’s night a traveler." In trying to find the text, the Reader travels from living room to classroom to publishing house to author’s home and back to a book club. By representing the various stages at which literary meaning is created, this novel forces us to examine the relationship between the Reader and our academic project of assigning meaning to a novel. By putting this novel in conversation with Roland Barthes’s “Death of the Author” and Jacques Derrida’s “Structure, Sign, and Play in the Discourse of Human Sciences,” I will explore a fundamental tension between these two dominant methods of literary analysis. Barthes relies on objective truth that can be transcribed by an author, while Derrida challenges the possibility that any universal truth can exist for readers. For us, this tension is deeply troubling: this novel seemingly supports these two oppositional modes of reading. In doing so, the novel disrupts both our analytic methods in English and our wider understanding of how and why we read. Placing these three texts in conversation with each other illuminates the fluidity with which readers create meaning and allows us to critique our own subconscious assumptions as readers and thinkers studying English literature.

Sam Goree  
MUSICAL STUDIES and COMPUTER SCIENCE

Structure and Randomness in Iannis Xenakis’ Analogique A

The music of late twentieth century composer Iannis Xenakis is often difficult to analyze because it makes use of complex computer-aided composition techniques, often involving randomness. While conventional set-theoretic approaches yield fruitful analysis, computational musicology, or treating music as data and using statistical methods to find trends, is really the analytical counterpart to computer-aided composition necessary to dig deeper into pieces like Xenakis’. In this paper, I apply data visualization and clustering techniques to Xenakis’ Analogique A and follow the same steps he used to create the piece, except in reverse. I then perform close readings of passages that the computational techniques struggle with, applying conventional set theory and Xenakis’ own sieve theory to dig deeper. Finally, I attempt to determine, using these results, where Xenakis followed his stated methods and where he made decisions based on his own aesthetic opinions instead.

Towards a Relative-Pitch Neural Network System for Chorale Composition and Harmonization

Computational creativity researchers interested in machine learning approaches to computer composition often use the music of J.S. Bach to train their systems. Working with Bach, though, requires grappling with the conventions of tonal music, which can be difficult for computer systems to learn. In this paper, we propose and implement an alternate approach to composition and harmonization of chorales based on pitch-relative note encodings to avoid tonality altogether. We then evaluate our approach using a survey and expert analysis, and find that pitch-relative encodings do not significantly affect human-comparability, likability or creativity. However, an extension of this model that better addresses the criteria survey participants used to evaluate the music, such as instrument timbre and harmonic dissonance, still shows promise.
site Mikt’sqaq Angayuk. Located at Womens Bay in Kodiak, this site contains a traditional sod house with a side room and an associated midden. Following the excavation, artifacts were photographed and analyzed and an associated paper was published. In the spring of 2017, I revisited these data and used Geographic Information Systems (GIS) software to create a map of the house floor, detailing the locations of the artifacts. Using the map I was able to make inferences about how the space may have been used and how Alutiiq workers may have navigated working under Russian conscription. The large number of metal objects at the site, particularly birdshot, clustered in the central room of the house, show that the people had weapons and means of sustaining themselves independently. In addition, the fire cracked rock present in the side room is consistent with Alutiiq steam rooms, implying that occupants continued traditions even at a remote site. These elements, along with other evidence from the site, indicate that the Alutiiq occupants had a greater level of autonomy than we may have expected.

Walker Griggs
RUSSIAN and BIOLOGY

Academic Advisors: Arlene Forman, Russian; Taylor Allen, Biology
Project Mentor: Thomas Newlin, Russian

Inadvertent Naturalists: Turgenev, Aksakov, and Russia's New Ornithology

This research examines the influence of hunter-authors Ivan Turgenev and Sergei Aksakov on 19th-century Russian science writing and vice versa, particularly on the subject of birds. Prior scientific writing both within and outside of Russia, focusing on taxonomy and anatomy, appealed to a highly select, academic audience. This research explores how the literary contributions of Turgenev and Aksakov helped to popularize ecological thought in Russia, and how biologists, namely Nikolai Severtsov and Charles Roullier, adapted their scientific publications to be more holistic, popular, and literary. It also investigates the reverse relationship – the influence of science on Aksakov's hunting guides and Turgenev's fiction. Most prior research in this field deals with authors and scientists separately. Examining the relationship between literature and science using birds as a case study enables a new understanding of early Russian thought on the natural world.

Natalie Hartog
COMPARATIVE AMERICAN STUDIES

Academic Advisor: Shelley Lee, Comparative American Studies and History
Project Mentor: Gina Pérez, Comparative American Studies

Collaborative Resource Sharing between the Prospect Elementary School Library and the Oberlin Public Library

My research examines the relationship between the Prospect Elementary School library and the Oberlin Public Library (OPL). A new collaborative project between these libraries, initiated this year, involves the librarian at the elementary school checking out approximately fifty OPL books per month. Then, said librarian brings the books to Prospect for students to check out there. Through ethnographic methods, including participant observation at Prospect's library and informal interviews with educators and librarians, I explore how the relationship between these two libraries is able to enrich each organization’s mission. This work serves as a case study of small community organizations working together in sharing resources to benefit young people.

Olivia Hay
ANTHROPOLOGY

Academic Advisor: Jason Haugen, Anthropology

Mattea Scheiber Koon
ANTHROPOLOGY and ENGLISH

Academic Advisors: Jason Haugen, Anthropology; Gillian Johns, English
Project Mentor: Jason Haugen, Anthropology

Investigating Allomorphy in a Coordinating Conjunction: A Corpus Study of Hiaki (Yaqui) Into(k(o))
Hiaki (Yaqui) is an endangered Uto-Aztecan language spoken in Sonora, Mexico and Arizona, USA. In Hiaki, the coordinating conjunction ‘and’ appears in three iterations: into, intok, and intoko. The presence of such variation often suggests a form of allomorphy, with each morpheme appearing in a predictable environment as in the case of English ‘a’ and ‘an’ variation (the former consistently precedes consonant-initial words; the latter, vowel-initial words). A cursory look at into(k(o)) suggests that a similar process is at play here, with scholars offering a variety of interpretations for into(k(o)) variation. To determine the motivating factors underlying into(k(o)) distribution, we subjected a corpus of Hiaki data to a battery of tests. We examined phonological factors, syntactic constraints, and semantic patterns. Ultimately, this barrage of tests failed to yield a dependable motivation for into(k(o)) variation. This finding suggests that into(k(o)) is in free variation.

Elisa Casado Henderson
BIOLOGY

Academic Advisor: Keith Tarvin, Biology
Project Mentor: Angela Roles, Biology

Does Position along the Watershed Affect Hybridization Dynamics between the Native Orconectes sanbornii and Invasive O. rusticus?

The rusty crayfish (Orconectes rusticus), has been recorded to have expanded outside of its endemic range of Southwest Ohio and Kentucky, displacing a variety of native crayfish. O. rusticus range expansion is likely due to human use as live bait, resulting in its introduction to the native range of the Sanborn’s crayfish (O. sanbornii). We are investigating the morphological and genetic impacts of invasion and possible hybridization in two invaded watersheds in north-central Ohio. Crayfish were collected from multiple sites along the Kokosing River and the Huron River. In both rivers, the ratio of invasive to native individuals varies with position in the watershed with a higher proportion of invaders downstream than upstream. Here, we ask whether the genetic composition of populations sampled along the watershed agrees with the morphological pattern, using nuclear sequence data. I will present morphological data on species distribution along sympatric rivers. Hybridization has been confirmed in the Huron R. but not yet in the Kokosing R. A closer look at the distribution of genetic diversity along the length of the watershed may provide insight into the consequences of the invasion for both invader and native.

Lily Johnson
MUSICAL STUDIES

Academic Advisor: Jan Miyake, Music Theory
Project Mentor: Ben Geyer, Music Theory

The Problem of Genre in Opera and Musical Theater

The institution, strict adherence to, and singular nature of genres in music has hindered our ability to hear music. The expectations attached to genres are so strong in present day that if these expectations are undermined, the listener fixes on the deviation rather than the inherent artistic value. In addition, there is no way to deal categorically with musical works that do not fit neatly into one genre, or those that fit into many. In order to show that genre is both an unnecessary and flawed way of categorizing music, I will examine two musical works. The ambiguity of genre in West Side Story (Leonard Bernstein) and Porgy and Bess (George Gershwin) has been discussed widely because the works contain elements of both musical theater and opera. While West Side Story has primarily been performed on Broadway stages, Leonard Bernstein recorded a classical version in 1984 featuring premiere operatic vocalists such as Kiri Te Kanawa and José Carreras. Although Porgy and Bess was originally conceived as an opera by Gershwin, it was altered and performed in America as a musical from 1942-1976, until Houston Grand Opera produced the piece in its original, operatic form. Through examination of the cultural context surrounding each work and theoretical comparison with the prototypical opera and musical, I will argue that genres are too simplistic a tool to be used musically, and that they are in fact inhibiting for musical appreciation.

Gabrielle Kaufman
MUSICAL STUDIES and PSYCHOLOGY
The Impact of Music Education on Language Development

In recent years, music education has been given less value in the American schooling system, causing decreased student participation and budget cuts (Kratus, 2007). Though many individuals do not support music education in public schools, those that do provide a wide variety of reasons, such as providing an opportunity for students to express themselves and relieve stress (North et al., 2000). Beyond these reasons, however, scientific research has found music education to have profound influences on psychological development, including cognitive and creative benefits (Corrigall et al., 2013). In this paper, I will demonstrate how music’s strong influence on language acquisition and development is in itself a convincing argument for the inclusion of music in curricula (Magne et al., 2006; Moreno et al., 2008). I will explore different frameworks of music education, emphasizing the Kodály method and Mary Helen Richard’s expansion on it, discussing how these methods can be particularly influential for language development.

Alexa L’Insalata
PSYCHOLOGY

Evaluating the Link Between E-Cigarette Use and Dieting Practices among Individuals Diagnosed with an Eating Disorder

E-cigarettes are gaining popularity among Americans of all ages (King et al., 2014). Research largely has focused on motivations for e-cigarette use that are driven by perceptions that vaping is less harmful than smoking cigarettes. Recently, research has identified motivations for vaping that are applicable to non-smokers. Of note, 13.5% of an online sample of adult e-cigarette users reported vaping to lose or control their weight (Morean & Wedel, 2017). The appeal of vaping to lose weight may disproportionately put individuals who have eating disorders at risk for vaping. Similar to cigarettes, most e-cigarettes contain e-liquid with nicotine, an appetite-suppressant that curbs cravings and increases daily calorie expenditure by approximately 200 calories (Chiolero et al. 2008). It also is possible that vaping serves as a behavioral distraction from hunger or a substitute for eating, similar to cigarettes (Kovacs et al., 2014). Further, e-cigarettes uniquely are available in many flavors that mimic high-calorie or high-fat foods (e.g., chocolate cake; caramel) yet contain no calories, a feature that may appeal to individuals with EDs. For the current study, I collected online data from 400 American adult e-cigarette users (200 with EDs) to determine whether rates of vaping to lose weight are elevated among individuals with EDs. Based on the cigarette smoking literature and on anecdotal evidence obtained from online eating disorder websites, I anticipate that more individuals with EDs will report vaping to lose weight than will individuals without EDs. Potential motives for vaping for weight loss subsequently will be examined.

Sean Lambert
COMPARATIVE LITERATURE and CREATIVE WRITING

Shock Therapy: Horror Aesthetics in German Modernism

This senior Honors project examines the connection between two movements in German culture during the 1920’s: the spread of art and literature that horrifies, shocks and disorients, and the parallel development of German modernism. It attempts to answer the questions, why is Weimar culture so saturated with horror aesthetics, and how do the goals of horror intersect with those of modernist art? By looking at examples of German literature, film, visual art, and philosophy, this project interrogates the way that the uncanny functions as a political response to the material conditions of Weimar Germany. In writing against thinkers such as Siegfried Kracauer, who have dismissed the horror elements of works from this time as apolitical or politically ineffectual, my study recuperates the usefulness of the uncanny in diagnosing and coping with a fraying democracy. Studying the politics of aesthetics in the German interwar period has particular relevance today: as America moves from its own costly war and subsequent economic recession into political instability, we might ask ourselves, what value do horror aesthetics have for representing our own political moment?
By Any Genes Necessary: Enlightened Self-Interest in Soren Kierkegaard’s Works of Love

In his 1976 work The Selfish Gene, evolutionary biologist Richard Dawkins addresses two questions: are humans inherently selfish and, if so, is altruism possible? The concept of selfish gene theory that he offers argues that we are selfish by nature because our genes are selfish and altruism is probably impossible. This conclusion, however, is reductionist and not satisfying because it does not offer an ethic. I argue that the Danish theologian Soren Kierkegaard asks the same questions in Works of Love and offers answers that are not reductionist and are more satisfactory in some ways because he promotes a balanced ethic. He posits that humans are selfish by nature and true Christians shed selfishness when they obey Matthew’s love command by loving God and all people without preference. This Christian practices what I call enlightened self-interest, in which God is a part of their relationship with the neighbor. There are also weaknesses in Kierkegaard’s argument that make his ethic unsatisfying in other ways, mostly that he does not directly support Christians practicing neighborly love through action. I interpret Works of Love to support an ethic of enlightened self-interest that includes loving one’s neighbor through action.
Marie Lilly
BIOLOGY

Academic Advisor and Project Mentor: Keith Tarvin, Biology

Bird Chatter as an Indicator of Safety: To What Extent do Eastern Gray Squirrels Rely on Public Information?

In ecosystems where multiple species share the same predators, it is advantageous for individuals to recognize information about the environment provided by other species. Eastern gray squirrels (*Sciurus carolinensis*) and other small mammals have been shown to exploit heterospecific alarm calls as indicators of danger. Whether or not small mammals recognize non-alarm auditory cues as signs of safety has yet to be shown. The objective of this study was to test the hypothesis that eavesdroppers such as eastern gray squirrels use bird chatter as a measure of safety. I measured the vigilance behavior of free-ranging squirrels in the presence of playbacks of bird chatter or silence after priming them with a playback recording of a Red-tailed Hawk call. In this study chatter was defined as contact calls from birds that were not under threat. Silence was defined as ambient background noise recorded in the absence of bird calls. Squirrels significantly responded to the hawk call playbacks by increasing the time they spent engaged in vigilance behavior as well as number of times they looked up during otherwise non-vigilance behaviors, indicating that they were primed to be vigilant to the possibility of predators in the area prior to the playbacks of chatter or silence. Following the hawk playback, squirrels engaged in significantly lower levels of vigilance behavior (i.e., standing, freezing, fleeing, looking up) during the chatter treatment than during the silence treatment, suggesting they used the information contained in bird chatter as a cue of safety.

Noah Margulis
ART HISTORY

Academic Advisor and Project Mentor: Erik Inglis, Medieval Art History

Depth of Field: Giovanni di Paolo’s Landscapes in Fifteenth-Century Siena

This thesis examines the landscape backgrounds of Giovanni di Paolo within the context of Sienese civic identity, developments in Italian Renaissance painting, and attitudes towards nature and farm land in Tuscany in the fourteenth and fifteenth centuries. In depicting sacred scenes, Giovanni di Paolo (1403-1482) frequently sets them in his contemporary Tuscan surroundings, with demarcated plots of contado farmland and the crenellated walls of Central Italy’s hill towns and cities in the distance. Exploration of di Paolo’s artistic influences and rural society sheds light on the civic identity and values of Quattrocento Siena. The study considers how the representation of an organized, fertile landscape communicates the political and spiritual ideals of justice and harmony in nature.

Perry Maybrown
MUSICAL STUDIES

Academic Advisor: Charles McGuire, Musicology
Project Mentors: Charles McGuire, Musicology; Erik Leidal, IES Abroad Vienna Center

A Journey through the Forest: The Evolution of Concept Albums and Song Cycles

This project examines the parallel development of the genres of concept albums and song cycles, analyzing them both historically and analytically. This will be done using four case studies: *Winterreise*, *Lieder eines fahrenden Gesellen*, *Sgt. Pepper’s Lonely Hearts Club Band*, and *The Hazards of Love*. There has been limited research comparing these two genres. The historical evidence is paired with analysis of narrative, tone painting techniques, and a discussion of how these two genres incorporated diverse musical styles (folk-type music, hymnody, metal and rock). This analysis will illustrate that both the concept album and the song cycle have developed in the same manner, growing more complex with every new iteration. This paper will be used to show not only their evolution but how both have been received, and how their paths have diverged.

Kristin McFadden
MUSICAL STUDIES
"It's a Boys' Club, Isn’t It?": One Dimensionality in Portrayals of the Female Rocker

Motti Regev states in his article "Artistic Value and the Case for Rock Music," “Women are rarely accorded the status of “great” rock artists..." (94). In this paper I will argue that the reason for women’s lack of credibility as rock artists stems from society’s ingrained belief that women can only be one dimensional. I will use examples of how rock critics and the media downplayed female rock artists such as Sister Rosetta Tharpe, Betty Davis, Joni Mitchell, Carole King, Tina Turner, and Alanis Morissette by limiting them to a singular label (i.e. “angry,” “sexy,” etc). By comparing their experiences to their male counterparts I will explore how gender affects the way society allows male rock musicians to be multifaceted yet denies the same for women.

Liam McMillin
RELIGION

Who Is “The Scholar”? or, Looking for Truth with Emerson

Where should we look for truth? This question has been at the forefront of thinkers’ minds for centuries and constitutes the central point of this essay. Focusing on the writing of Ralph Waldo Emerson, I pose the question: should “the scholar,” or thinker, bear truth or pursue it? I turn to Victor Nuovo and Stanley Cavell, both thinkers who write on Emerson’s concept of “the scholar” but come to different conclusions: in Nuovo’s interpretation of Emerson, he adopts what I call a “vertical” approach, where the scholar reveals a transcendent truth. Cavell’s reading advocates for a “horizontal” approach, where the scholar discerns truth from existence. I argue that the point of intersection between horizontal and vertical is where we can actually find Emerson, where truth is discerned from our experience and that truth is meaningful but not ultimate.

Samuel Mellman
MUSICAL STUDIES

Barbershop Quartets and American Popular Music

In my capstone paper, I examine how barbershop quartet music is underrepresented in college and university-level classes on the history of American popular music. Though many people are only familiar with the barbershop quartet’s stereotypical image as occasionally seen in the media, barbershop quartet singing was very popular in the early 20th century, both in practice and in recordings. This music was not exclusively a cappella, and many of the popular recording groups sang over bands! College textbooks touch on these subjects, but do not give barbershop the attention it deserves. I’ve investigated three textbooks: Larry Starr’s and Christopher Waterman’s American Popular Music: From Minstrelsy to MP3, Richard Crawford’s and Larry Hamberlin’s An Introduction to America’s Music (2nd ed.), and a 1948 textbook on popular songs by Sigmund Spaeth titled A History of Popular Music in America. My research into the history of barbershop comes partly from academic literature: John Runowicz’ Forever Doo-wop, Vic Hobson’s Creating Jazz Counterpoint, and Averill Gage’s esteemed Four Parts, No Waiting: a Social History of American Barbershop Harmony examine the social and performance history of barbershop. I heavily reference David Wright’s “The History of Barbershop” lecture series, which masterfully contextualizes and details barbershop throughout American history. Analyses of primary source recordings of the American Quartet, the Peerless Quartet and other top groups from the 20th century help to define the barbershop sound and bring context their relationship to other popular songs at the time.

Jackie Milestone
TECHNOLOGY IN MUSIC AND RELATED ARTS (TIMARA)
Transformation through Installation: Portraying Ovidian Metamorphoses via Multimedia

The purpose of this project is to create a physical embodiment of Ovid’s theme of transformation in his work, Metamorphoses, focusing on how the corporeal changes of women into trees affect their expressions of grief. The project is installed in a park or outdoor space (planned for Tappan Square), and it consists of cloths with the names of women from certain myths hung around trees, notecards hung from the branches containing quotes from the myths or contemporary adaptations (on one side) and questions (on the other). There is an audio component created for listening on headphones, which consists of thematic music and spoken excerpts from the myths. The three featured characters are Daphne, Myrrha, and Dryope, because their causes for transformation are each fairly different from one another; Daphne is changed as a form of escape, Myrrha for the sake of pity, and Dryope because of an unfortunate blunder. Yet their metamorphoses all invoke an experience of suffering, which is embodied in the same final form of a tree. The installation is designed to personify these trees as a way of paying homage to the women in the stories, and provoking the viewer to engage in complexities of what their transformations mean, both in regards to the myth and in regards to contemporary applications of the concepts.

Anthony Moaton
Performance Studies
Mellon Mays Undergraduate Fellowship
Summer Research Training Program, University of Chicago

Academic Advisors: Caroline Jackson Smith, Theater and Africana Studies; A.G. Miller, Religion
Project Mentor: Matthew Rarey, Arts of Africa & the Black Atlantic

To Make You Feel Something: Analyzing Branden Jacobs-Jenkins’s An Octoroon

My research investigates the relationship between representations of blackness and audience reception, using the play An Octoroon by Branden Jacobs-Jenkins as my case study. The play is an adaptation of Dion Boucicault’s 1859 classic The Octoroon, which chronicles the lives of the residents of the Louisiana plantation, Terrebonne. Jacobs-Jenkins’s adaptation is controversial for its use of blackface, redface, and whiteface, along with the explicit racial language used by the characters, all of which is part of Jacobs-Jenkins’s intention to “make you [the audience] feel something.” I will use the concept of the “black body” as constructed by the theorist Harvey Young to interrogate the ways in which Jacobs-Jenkins uses his black characters (those played by black actors and those in blackface) to achieve his goal of making the audience “feel something.” Harvey Young claims that the “black body” comes into being when popular connotations of blackness are mapped across or internalized within black people. By understanding the myriad ways that an audience can follow Jacobs-Jenkins’s intentions for his audience (ranging from walking out of the theater to critically praising the play), I intend to highlight the ways that performances of blackness are judged and used to reify existing racial hierarchies.

Zach Moo Young
PSYCHOLOGY
Mellon Mays Undergraduate Fellowship

Academic Advisor: Al Porterfield, Psychology
Project Mentors: Daphne John and Clovis White, Sociology

Oberlin College Hoops: Sport and Diversity in Higher Education

The men’s basketball program at Oberlin College is a Division III program in the National Collegiate Athletic Association (NCAA) that historically has recruited and matriculated students who brought socioeconomic diversity to the college. Division III institutions are prohibited from providing athletics-based financial aid, as their Division I counterparts are. Subsequently, at a Division III school, a student-athlete’s ability to attend the college is not contingent on their athletic performance. This study seeks to explore whether Division III basketball players who are Black and/or who come from relatively lower income families, and/or are first generation college students experience different academic and athletic outcomes than those players at Division I schools. Nineteen Black men who were formerly Oberlin College basketball players were interviewed for this study. Preliminary findings reveal nearly all cite basketball as introducing and recruiting them to Oberlin College. Almost all expressed satisfaction in their decision to attend Oberlin and felt that they were prepared for life after their undergraduate studies. These effects were especially profound in players who played for a coach they considered to be a mentor figure. These patterns provide some evidence that the structure of Division III athletics allows for a more
balanced approach to athletics participation in higher education, leading to more satisfactory experiences and outcomes. The scale of these effects may be limited as Division III institutions may struggle relative to Division I to admit and financially support low-income students, including many prospective Black student-athletes, as they are prohibited from providing any athletics-based financial aid.

**Jeeva Muhil**
SOCIOLOGY
Jerome Davis Research Award

**Dignity and Dining Halls: Relations of Power in Oberlin Labor**

Although campus dining workers make up an integral part of the campus labor force, they have rarely been the subject of sociological investigation. Previous research confirms that, like many other employers, colleges often rely upon subcontracting in order to sidestep the responsibility of exploitative labor relations. In response, campus labor coalitions reframe labor demands into larger moral appeals in order to mobilize popular support. In 1995, Oberlin’s dining facilities and maintenance staff unionized despite considerable administrative opposition, becoming affiliates of the United Automobile Workers (UAW) union. Using a mixed method approach that draws upon qualitative interviews with current UAW members and an archival review of newspapers, administrative letters, and union documents, this paper examines Oberlin’s current working conditions, culture shifts in Oberlin’s labor practice or policy, and the strategies used by Oberlin labor activists to hold the college accountable. I analyze worker narratives to examine the interplay between moral framework and organizational identity. The archival review contextualizes Oberlin’s UAW labor relations within the broader scope of campus union organizing. Using the case studies of Yale – whose dining workers have been unionized since the 1980s – and Pomona – whose dining hall workers only unionized in 2015, my findings reveal that labor gains are hard-won and often mutable over time. These findings align with previous research and suggest that college administrative policy mirrors the broader neoliberal turn towards outsourcing and “flexible” or routinized labor. However, some campus unions have successfully repudiated these trends through strong intergroup solidarity and strategic framing.

**Al Nadeau-Rifkind**
GENDER, SEXUALITY & FEMINIST STUDIES

**Between and beyond the Binary: Gender Pronouns and Community Support**

This ethnographic project explores trans identities that exist beyond and outside of the gender binary, through an analysis of the use of non normative pronouns (eg the singular they, sie/zie/hir, or opting to use one’s name as a pronoun). Trans- embodiment is largely understood as changing genders, the journey across the binary, from female-to-male or male-to-female, with “passing” as a cisgender man or woman marking the finish line. This project seeks to understand how trans gender identifications are both upheld by community understanding and restrained by a lack thereof. How is one's ability to identify as a gender other than man or woman, influenced by community support and awareness? This question is explored in the qualitative thematic analysis of 15 in-depth interviews of participants that hold various gender identities and use a range of pronouns at Oberlin College and in the greater Washington, DC area.

**Grover Neville**
MUSICAL STUDIES and CREATIVE WRITING

**The Sonification of Money: Applying Creative Innovation in the Music Industry**
Is the music industry really failing? Mainstream and scholarly rhetoric is fierce on this topic, much of it centering around the Recording Industry Association of America's annual music industry's annual reports which show gross revenues halving every year since 1994. In this paper I will examine the current profitability and sustainability of the music industry, and argue that there remains significant untapped commercial potential in the American music market. My analysis will use the IDEO design company and Creative Problem Solving Institute's creative design process tools. (see fig. 1 and 2.) With this framework of Human-centered design and creative problem solving, I will identify and define the following goals of the music industry: distribution, artist sustainability, and audience relations. I will also put each of these issues into context with case studies on RIAA economic figures, market constriction, and shifting technological mediums to propose three solutions to combat economic stagnation in these areas. These solutions, which include restructuring management models, leveraging podcasting, and matching media formats to markets, are inherently useful, but also serve as examples of creative problem solving process applied to the music industry. My conclusion is that the industry requires a new approach to solving the economic struggles it is experiencing, and that creative design thinking can be a powerful tool in this process.

Alexandra Nicome
ART HISTORY

Academic Advisor: Erik Inglis, Medieval Art History
Project Mentors: Matthew Rarey, Arts of Africa & the Black Atlantic; Sarah Hamill, Modern & Contemporary Art; Erik Inglis, Medieval Art History

Who is Neotraditional?: Visualizing Postcolonial Identities in J. D. ‘Okhai Ojeikere’s Hairstyles Photographs

Photographer J. D. ‘Okhai Ojeikere captured postcolonial attitudes and aesthetics from Nigerian independence up to his death in 2014. This essay uses ‘Okhai Ojeikere’s photograph Onile Gogoro, a portrait of the 1960’s Nigerian hairstyle, to formulate a sense of identity in postcolonial Nigeria. Specifically, this essay considers the description of Ojeikere’s works as “neotraditional”: a term applied to contemporary works, usually from non-Western nations, that are produced using traditional modes or aesthetics. This paper uses histories of photography in Africa, previous scholarship on Ojeikere’s works, and theories of postcolonialism to interrogate his oeuvre. Ojeikere’s images show how photography attempts a balance between imagined or real, fixed or unfixed, and othering or affirming representations of the postcolonial Nigerian subject.

Brendan Nuse
EAST ASIAN STUDIES and ENVIRONMENTAL STUDIES

Academic Advisor: Ann Sherif, East Asian Studies; Dennis Hubbard, Geology and Environmental Studies
Project Mentor: David Kelley, History and East Asian Studies

The Endangerment Turn: Tracking the Transition of Vegetarian Discourse in Contemporary China

This research examines changes between historical and contemporary iterations of Chinese vegetarianism discourse. Vegetarian discourse can be divided into two categories: entitlement (which focuses primarily on animals’ entitlement to life) and endangerment (which focuses on meat as a contaminating agent). This project attempts to determine how Chinese vegetarianism fits into this framework. It uses interviews with Chinese international students at Oberlin College, analysis of Chinese vegetarian blogs, and academic work by Chinese and non-Chinese academics to better understand the state of vegetarianism today as compared to the past. This study found that, while Chinese vegetarianism has historically been grounded in Buddhism, which primarily makes entitlement-based arguments, endangerment-focused vegetarianism is currently emerging in contemporary China. This research helps provide an understanding of Chinese vegetarianism within a social context, which helps both Chinese and non-Chinese people better navigate the Chinese vegetarian landscape.

Isaac Pearl
MUSICAL STUDIES

Academic Advisor: Jan Miyake, Music Theory
Project Mentor: Ben Geyer, Music Theory

Experiential Composition: An Exploration of Virtual-Environmental Music
In the liner notes from the 1982 record series Wave Notation, Satoshi Ashikawa defined environmental music as “an object or sound scenery to be listened to casually. Not being music which excites or leads the listener into another world, it should drift like smoke and become part of the environment surround the listener’s activity.” This paper aims to expand upon his vision for environmental music by defining empirical parameters for its relationships between composer, listener, and location. By examining the culture, history, and compositional methods of ambient, furniture, installation, and video game music, this paper will argue that in many cases, these musical traditions can be categorized as environmental music. Further analysis of material from studio, interactive, and performance contexts will provide explicit examples of what defines an environmental musical practice. Finally, this paper will examine and reflect on how environmental music fits into the context of the larger art world, and suggest ways in which composers can integrate its philosophy and methodology into their own work, whether environmental or not.

Kirk Pearson
GEOLOGY, COMPOSITION and CINEMA STUDIES

Academic Advisor: Karla Hubbard, Geology
Project Mentors: Karla Hubbard, Dennis Hubbard, and Steven Wojtal, Geology; Yolanda Cruz, Biology

Experimental Biomechanics on Trinucleid Fringe Pits (Trilobita)

The morphometric uniqueness of the trinucleid family of fossil arthropods, known as the trilobites, has led to a considerable amount of attention in paleontology literature. In particular, the distinctive hourglass-shaped pits that dot their anterior have been the subject of debate for over a century. Though anatomically well understood, their function remains unknown. Many proposals have been suggested, including its use as a sieve for filter feeding, a strong shield for defense, and a sensory mechanism. Despite the wide ranges of speculations, no study has attempted to model these hypotheses with experimental methods. This study in functional morphology attempts to shed light on the validity of the most contentious of these theories by 3D printing a trinucleid head and testing its abilities in a variety of situations. We found that the dominant theories for over a century, filter feeding and strengthening, are not well supported. Instead, our results suggest that the pits are an ontogenetic signature that allow the cephalon to grow larger, providing trinucleids with an excellent mechanism for plowing through fine-grained silts and clays.

Sophie Pierson
ANTHROPOLOGY
Selch Fellowship, Frederick R. Selch Center for the Study of American Cultures

Academic Advisor and Project Mentor: Jason Haugen, Anthropology

Codeswitching in Hiaki Conversational Discourse: An Evaluation of Myers-Scotton’s Matrix Language Frame Model

Through the lens of Hiaki-Spanish codeswitching, this paper provides evidence that the languages that engage in bilingual codeswitching are grammatically asymmetrical. With the exception of a few counterexamples addressed at the end, this research supports Myers-Scotton’s theory that the surface word order and certain types of morphemes should always come from the grammatically “dominant” language (the Matrix Language) in mixed language constituents. If the other (Embedded Language) contributes morphemes that violate either of these principles, the remainder of its constituent must be finished in that language. Although the Hiaki language has been thoroughly studied, this study is one of the first on codeswitching in Hiaki. It is also one of the first studies of naturally occurring discourse in Hiaki, as most of the previous research on Hiaki has been based on elicitation.

Lillian Posner
HISTORY and RUSSIAN & EASTERN EUROPEAN STUDIES
Frederick B. Artz Research Grant

Academic Advisors: Annemarie Sammartino, History and Thomas Newlin, Environmental Studies
Project Mentor: Annemarie Sammartino and Christopher Stolarski, History

"And There in the Postwar Silence": Olga Berggolts and Postwar Soviet Subjectivity, 1945-1954
Most famous for her work as the voice of Radio Leningrad during World War II, poet and propagandist Olga Berggolts extolled the glories of the Soviet Union. But her postwar diaries and poems tell a different story, one of intermittent disillusion and indignation, but also wholehearted faith. While she experienced the catastrophic suffering of the war as an ennobling, indeed uplifting experience, for her, the postwar period was much more difficult. In this, she was not unique. This project explores how people's attitudes to the Soviet regime changed in the wake of a catastrophic war and the triumph of victory. It simultaneously uses Berggolts's poetry as a lens by which to understand feelings that could not be written or talked about otherwise under Stalin. Berggolts gives voice to the private ideological struggles that ordinary communists experienced behind closed doors.

Shelby Raynor
LATIN LITERATURE & LANGUAGE and ARCHAEOLOGICAL STUDIES

Academic Advisor: Chris Trinacty, Classics
Project Mentors: Chris Trinacty, Classics; Drew Wilburn, Archaeological Studies

Granary C113 from Karanis: A Case of Misidentification

Grain was the single most important food source for the Roman Empire, and a large portion of grain for the empire was supplied by farming in ancient Egypt. An elaborate system of granaries and transport methods were developed within Egypt to facilitate the movement of grain from Egypt to Rome, however, less is known about the storage processes used to store grain for local use. The ancient settlement of Karanis provides a rare opportunity to study local granaries from this time period. The settlement was excavated in the 1920s and 30s by the University of Michigan and at the time at least 10 large granaries were discovered and documented. It is thought that some of these granaries were part of the processes to move grain to Rome, but some appear to have been used for local grain storage. This project examines granary C113 which was likely a local granary that did not participate in the processes of moving grain to Rome. Through a close examination of the archaeological data, papyri, secondary sources, and GIS data available it becomes clear that C113 was a large granary participating in the local grain economy. Furthermore, the evidence shows that C113 was misidentified as a granary and that it was likely a bakery with provisions for the storage of a large amount of grain.

Lauren Rhodes
ENVIRONMENTAL STUDIES
Academic Advisor: Chie Sakakibara, Environmental Studies

Abigail Carlstad
SOCIOLOGY
Academic Advisor: Christie Parris, Sociology

Project Mentors: Cindy Frantz, Environmental Studies; Bridget Flynn, Office of Environmental Sustainability

Community-Based Social Marketing Research: Sustainable Behavior Change in Oberlin

Community-Based Social Marketing (CBSM) uses empirical methods, insight from the social sciences, and rigorous assessment to promote environmentally sustainable behavior. At Oberlin College, Psychology Professor Cindy Frantz and Bridget Flynn of the Office of Environmental Sustainability support students in developing a wide range of projects on campus that reduce carbon emissions. These include reminders for behaviors like using cold water when washing laundry, campaigns like Bike to Work Week, and behavioral studies in order to make impactful changes. The student researchers identify the most widespread, high-impact, and easily changeable behaviors to target. They deploy surveys and make field observations to investigate the psychological barriers and benefits of performing a behavior. Then they design, implement and evaluate these programs before endorsing wide-spread implementation. These presentations from two of the CBSM student researchers describe our most successful projects and explain why our methods are effective.

Juan Omar Rodriguez
NEUROSCIENCE
Mellon Mays Undergraduate Fellowship, Oberlin College
Articulations of Mestizaje in Early Twentieth-Century Mexican Art

This research project aims to analyze the relationships between national Mexican mestizaje and official art using Diego Rivera’s *Creation* (1922-23) and *Our Bread* (1928) as case studies. Beginning in the 1920s, the post-revolutionary Mexican government commissioned mural paintings with social and political messages in attempts to reunite the country under the new government. The artists employed in this culture project were tasked with the creation and advancement of a national iconography with the aim of uniting the illiterate masses under a new national identity. This post-revolutionary nationalism was predicated on the racial trope of the mestizo – an assimilative mixture of contemporary Mexico’s white European and Indigenous populations. While the adoption of a national racial identity was meant to reconfigure mixture as positive rather than degenerate, the adoption and promotion of official mestizaje in government-funded murals functioned to legitimize and normalize racial hierarchies that allowed for the stigmatization of Indigenous Mexicans and exclusion of Mexicans of African and Asian ancestry in the discourse of national Mexican identity. Utilizing visual analyses of these two murals, supplemented by a social history of art approach to analyze the ideological nature of their visual elements as related to social, political, and material conditions of the lived experience, I will explore the articulations of mestizaje in Mexican art of the 1920s.

Jacob Roosa

ART HISTORY

Voices from the Forge: Work, Space, and Communication in Early Cistercian Monasticism

This research considers the place of artisans and manual labor, specifically blacksmiths and metalworking, within Cistercian monasticism in 12th and 13th century Europe. Stressing the dual importance of daily prayer and manual labor in strict silence, the Cistercian order of monks sought to reform traditional monastic practices they saw as excessive and far removed from their guiding set of regulations, the Rule of St. Benedict. Their growing numbers in the 12th century led them to establish a second class of monks, known as lay brothers, who provided the majority of each monasteries’ manual labor and who were largely prevented from moving outside the spaces and buildings designated for them in the monastery. Drawing from archaeological studies of forge buildings in France and England, as well as from legislative and regulatory documents that shaped the social structure and economic growth of the Cistercian Order, this project seeks to present the spaces of Cistercian metalwork as centers of experience and knowledge distinct but inextricable from the monasteries they supplied and supported. This focus brings greater attention to the relatively unexplored topic of monastic blacksmiths and their experience of monastic life, specifically as they relate to the Cistercians’ strong restrictions on speech and communication in daily life. This approach allows us to better understand tensions between manual labor, communication, and the transmission of knowledge that come out of medieval monasticism.

Christiana Rose

TECHNOLOGY in MUSIC & RELATED ARTS and CINEMA STUDIES

Flight, Musical Expression and Virtuosity

Wearable sensor technology and aerial dance movement can be integrated to provide a new performance practice and perspective on interactive kinesonic composition. SALTO (sonic aerialist electroacoustic interface), a new musical interface for collaborative works in the aerial arts, demonstrates an initial design for and investigation into the capabilities of such a system. The system incorporates aerial dance trapeze choreography/movement, sensors, and digital synthesis. The software design of SALTO, done in the MaxMSP programming environment also considers parameters and mapping techniques for translating the performer’s perception of the sound during a performance to the viewer. *Splinter* (2016) for aerial choreographer/performer, SALTO, and Myo Armband, highlights the expressive qualities of the system in a performance setting.
Scott Russell
ARCHAEOLOGICAL STUDIES and BIOLOGY

Academic Advisors: Michael Moore and Marta Laskowski, Biology
Project Mentors: Michael Moore, Biology; Laura Motta, Department of Classical Studies, University of Michigan

The Role of Millet in Pre-Roman Italy

The role of common millet in Roman society is a source of some argument between historical and archaeological sources. Through analysis of samples from one building in the settlement of Gabii, an early Roman site, local patterns of cultivation and consumption of millet can be ascertained. Samples ranging from 900 to 500 BCE were found to contain the charred remains of millet seeds. Charred plant remains provide data in many archaeological contexts as to the food being produced and consumed, fire being an important point in both processes. That millet is found in this state suggests that on this site millet was normally consumed by humans. This kind of archaeological evidence questions the class-influenced picture of millet versus more highly demanded grains such as wheat that was put forth by some classical writers and shows a more complex history of consumption than chiefly as animal fodder.

Rachel Sacks
RELIGION and GENDER, SEXUALITY, & FEMINIST STUDIES

Academic Advisor: Margaret Kamitsuka, Religion
Project Mentors: Cindy Chapman and Margaret Kamitsuka, Religion

Fearless Foreign Women: Exploring Tamar and Ruth as Characters within a Post-Exilic Debate on Intermarriage

This research examines the influence of Genesis 38 on the Book of Ruth. Both texts feature women—Tamar in Genesis 38 and Ruth in the Book of Ruth—whose extraordinary actions result in the preservation of King David’s descendants. While the Book of Ruth draws on many received traditions, its use of Genesis 38 has been underappreciated and not fully understood. To explore this, I identify similarities in the stories, as well as the likely political purpose and historical context of each text. I apply the practice of retelling biblical stories to the Book of Ruth, and argue that evidence points to the Book of Ruth as a rewritten adaptation of Genesis 38 that advocated for intermarriage in Judean communities. The story was written as part of a larger tradition of post-exilic texts that use Genesis 38 as a basis for the debate on the legitimacy of intermarriage, which erupted under Ezra and Nehemiah during the Persian period.

Naviya Schuster-Little
BIOCHEMISTRY

Funded by The National Cancer Institute

Academic Advisor: Manish Mehta, Chemistry & Biochemistry
Project Mentor: Rebecca Whelan, Chemistry & Biochemistry

Optimization of Emulsion PCR for Aptamer Selection

Cancers are known to produce unique biomolecules or biomarkers that can be detected using diagnostic tests. CA-125 and HE4 are two biomarkers used in clinical tests to detect ovarian cancer, which responds favorably to treatment when diagnosed at its earliest stage. These tests however, often produce both false positives, identifying cancer when it is not present, and false negatives, failing to detect biomarkers that are present. A diagnostic test based on recognition by nucleic acid aptamers may help improve detection of these biomarkers. SELEX is one method used to select aptamers, short oligonucleotides, (usually RNA or single stranded DNA) that bind to a target with high affinity and specificity. The selection process requires PCR to amplify the aptamers. At high cycle numbers, the use of PCR with aptamers is problematic due to byproduct formation and low yields of double stranded DNA (dsDNA). Emulsion PCR (ePCR) has been found to reduce byproducts at high cycle numbers through the use of an oil and water mixture. The emulsion reduces the aqueous phase to tiny droplets, creating individual reaction chambers which produce dsDNA with reduced byproduct. ePCR using a EurX kit has reliably produced dsDNA with less byproduct compared to conventional PCR. Successful optimization of ePCR will be used in the next SELEX selection of HE4.
Liv Scott  
ENVIROMENTAL STUDIES

Academic Advisor and Project Mentor: Md Rumi Shammin, Environmental Studies

Lessons in Resilience: From Biological Systems to Human Food Systems

Nature’s lessons in resiliency can offer lessons for our food systems. Resilience is a crucial trait for our food systems as disturbances due to climate change and globalization become more frequent. With 3.6 billion years of evolution, biological forms are models of resilience. I will use literature review and critical analysis of resiliency and the network structure in three biological systems: microbial metabolism, mycelial structure and food webs. Through network theory and resilience thinking, I intend to identify structural traits common throughout these biological systems, which contribute to their resilience. In this research, I aim to both draw parallels in system design across biological systems to determine resilient network forms as well as apply these lessons to food systems in human communities.

Vikram Shankar  
MUSICAL STUDIES

Academic Advisor: Ellen Sayles, Musical Studies and Office of the Dean of Studies  
Project Mentor: Stephen Hartke, Composition

Symphonies of Horror: Musical Experimentation in Howard Shore’s Work with David Cronenberg

With a career spanning almost forty years, Canadian composer Howard Shore has become one of the most respected and sought after film composers working in the industry today. Much of his work, in particular his scores for the Lord of the Rings films, have received much academic attention; his longstanding working relationship with Canadian horror filmmaker David Cronenberg, however, has not yet benefited from such academic inquiry. Using the films The Brood, Videodrome, The Fly, and Naked Lunch, as case studies, this thesis examines the way that Shore uses the arena of Cronenberg’s films as a laboratory for personal musical experimentation. Using as sources Cronenberg’s own writings, Howard Shore’s words, and what academic inquiry exists in this field, but more often utilizing my own analysis and observations of the music and films, I argue that Shore’s scores incorporate such musical experimentation to work in tandem with Cronenberg’s own experimental art. As such, Shore’s scores for Cronenberg’s films are a prime illustration of the practical value of experimental art music, showing that there is room for the avant-garde in music outside of the realm of academia and indeed that such music can have commercial potential.

Natalia Shevin  
HISTORY  
Leah Freed Memorial Prize

Academic Advisor and Project Mentor: Renee Romano, History

"We Need Not Weep Alone": Evelyn C. White’s Vision of a World Where Black Women are Free

This paper investigates the life and writing of Evelyn C. White, a previously unexamined figure in the scholarship of Black feminism of the twentieth century. She is the author of Chain, Chain, Change: For Black Women in Abusive Relationships (Seal Press, 1985), Black Women’s Health Book (Seal Press, 1990), and Alice Walker: A Life (W. W. Norton, 2004). In White’s three major works, she addresses a different aspect of, what she referred to as, Black women’s “unexamined pain.” Without White, history lacks a storyteller whose life has illuminates the opportunities, obstacles, and imagination involved in creating a world where Black women are free.

Kai Shinbrough  
PHYSICS and PHILOSOPHY

Academic Advisor: Stephen FitzGerald, Physics; Todd Ganson, Philosophy
**Infrared and Thermal-Desorption Spectroscopy of Hydrogen in Metal-Organic Frameworks**

A body of research has recently formed around the study of hydrogen adsorption in Metal-Organic Frameworks (MOFs), specifically with regard to using these materials as quantum sieves for the separation of molecular deuterium (D₂) from molecular hydrogen (H₂). This work presents a custom apparatus for *in situ* Infrared (IR) and Thermal-Desorption Spectroscopy (TDS) of H₂ and D₂ adsorbed into MOFs, an analysis of spectroscopic results, and a close examination of current theoretical models for hydrogen-MOF TDS through computational techniques. Ultimately we conclude that the prevailing model for hydrogen-MOF desorption is unphysical, and, while there is still some industrial benefit to molecular separation with stronger binding MOFs, we present the surprising conclusion that stronger binding MOFs exhibit diminishing returns with respect to their H₂ – D₂ separation factor. This conclusion is supported by theoretical as well as empirical evidence.

**Emma Snape**

**RELIGION and CINEMA STUDIES**

_**Goddess Killing: The Combat Myth and Politics in the Revelation of John**_

In this paper, I argue, through a source-critical reading of Revelation, that the implementation of the combat myth in Revelation displays not only the text’s religious ideology, but its political ideology. The combat myth is a narrative central to many Near Eastern creation myths, in which a hero-god must fight a deity embodying chaos and the sea to take on the task of creation and establish kingship. This archetype manifests in Revelation in the conflict between Christ and Satan, and it results in the destruction of the old world and the creation of the new. I will argue that Revelation derives its subject matter from a variety of religious traditions, adapting each of these influences to fit the author’s monotheistic, politicized ideology. The resulting text is a piece of apocalyptic literature which promises salvation to all Christians, once the spiritual evils posed by the Roman Empire have been overcome, by utilizing a rhetoric of gendered violence.

**Tory Sparks**

**GENDER, SEXUALITY & FEMINIST STUDIES and ANTHROPOLOGY**

_**This is a Closed Space for Queer Identifying Folx**: Queer Spaces on Campus_

Using data from 27 interviews conducted in Fall 2016, I will show how students at Oberlin College construct queer-only spaces as sites for the formation of their queer identities. This is done through three discourses: the rhetoric of safe spaces; the ambiguity of queer as an identity label; and the positioning of a space as open or closed based on self-identification. Thus, in entering a space in which participation is contingent upon self-identification with the category “queer” (as it pertains to non-heterosexual and/or non-cis identity), students at Oberlin College are co-producing their queer identities while simultaneously forming “queer spaces.” This paper looks at 1) the ways in which Oberlin students identify as and define queer, 2) the rhetoric of queer spaces and how they are defined, talked about, advocated for, and advertised, 3) problems Oberlin students encounter with creating and participating in these queer spaces, including those specifically experienced by students of color and gay men, 4) the ways students understand and navigate through the concept of and rhetoric around “safe spaces,” 4a) how all of these factors are dealt with through a contradicting and yet reconcilable engagement with identity politics and queer theory, and 4b) how Oberlin Students are unique queer figures within a Foucauldian genealogy of queerness as always in relation to a norm.

**Taylorlyn Stephan**

**ANTHROPOLOGY**
Academic Advisor and Project Mentor: Amy Margaris, Anthropology

What’s in A Neanderthal: A Comparative Analysis

In this analysis, I seek to understand how three separate lines of evidence – skeletal morphology, archaeology, and genomics – are used separately and in tandem to produce taxonomic classifications in Neanderthal and paleoanthropological research more generally. To do so, I have selected four sites as case studies: El Sidrón Cave, Mezmaiskaya Cave, Shanidar Cave, and Vindija Cave. El Sidrón, Mezmaiskaya, and Vindija all have detailed archaeological records and have yielded Neanderthal DNA. Shanidar is one of the oldest and most well-documented Neanderthal sites. Alongside the four sites listed above, the findings of the full-coverage Neanderthal genome will be used as a “site” of sorts to understand how genetics can inform and supplement morphological and archaeological data. Ultimately, the data presented here is more useful to contextualize the meta-interactions between paleoanthropological subdivisions rather than to answer, “what is a Neanderthal?”.

Khalid Taylor

MUSICAL STUDIES

Oberlin College Research Fellowship

Academic Advisor: Chris Jenkins, Office of the Dean of the Conservatory
Project Mentor: Marcelo Vinces, Center for Learning, Education & Research in the Sciences

Grooves on the Mind: The Call for Music Therapy Practices Applicable to Communities of Color

The purpose of this research is to examine the current structure and effects of music therapy, as it pertains to racial and ethnic demographics. Music therapy has been shown to be an effective form of Cognitive Behavioral Therapy (CBT), significantly enhancing neurological, psychological, and social facets of human perception, emotion, and interaction. Its dynamic interventions benefit both individuals and groups, because music offers a medium through which people with different lived experiences can find comfort in connection. While music can resonate with people across labels of identity, there are also less apparent therapeutic aspects of how music can and does serve different communities. The most effective strategies of music therapy currently function by individually assessing the needs of clients and applying clinically proven methods of treatment. Analysis of clinical and sociological literature will allow for a greater understanding of disconnect between these practices and their prevalence within communities of color in the United States. However, preliminary research highlights a scarcity in the acknowledgement of race as a factor discussed in the process aiding clients. Given that the field is biased towards Eurocentric approaches of treatment, the lack of intentional incorporation of multicultural approaches creates both inaccessibility and inefficacy of treatment for people of color (POC’s). Ultimately, this research will serve as a basis for modification and implementation of effective musical interventions to specifically address the manifestations of trauma amongst communities of color, as well as a platform to acknowledge the often-invisible and self-sustaining practices already prevalent within these communities.

Xavier Tirado

SOCIOLOGY and BIOLOGY

Oberlin College Research Fellowship

Academic Advisor: Daphne John, Sociology; Yolanda Cruz, Biology
Project Mentors: Daphne John and Christie Parris, Sociology; Jan Cooper, English

Pathways in and out of STEM: An Exploration of School Structure and Its effects on Underrepresented Minorities at Oberlin College

It is a common narrative in higher education, including Oberlin College, for underrepresented minorities (URMs) to begin their college careers as a Science, Technology, Engineering, and Math (STEM)/pre-med student, but change their focus to a major that is separate from STEM fields. Could this issue arise from the inability to eradicate structural educational inequalities? This research project explores the reasons why students’ do not persist in their intended major, and instead graduate with non-STEM degrees. The overall purpose is to gauge important themes pertaining to secondary and higher education that are critical for the experiences for students with marginalized identities in STEM. Understanding the mechanisms behind the growth and development, or lack there of, in the sciences is imperative for surpassing barriers that limit student achievement and success in this white dominated field. Therefore, my
research will incorporate interview and survey data collected from Oberlin College students to determine the reasons for a lack of retention of URMs in STEM. This process will allow for the exploration of common themes between student narratives that can be placed within a theoretical/thematic framework. Themes include issues of diversity, competitive/unsupportive culture, and learning, teaching, and weed-out tradition.

Jacob Turner  
PHYSICS

Academic Advisor: Rob Owen, Physics & Astronomy  
Project Mentor: Dan Stinebring, Physics & Astronomy

Including Interstellar Scattering Effects in Pulsar Timing

The NANOGrav collaboration aims to detect low frequency gravitational waves by measuring the arrival times of radio signals from pulsars. A confirmation of such a gravitational wave signal requires timing tens of pulsars with a precision of less than 100 nanoseconds for around 10-25 years. A crucial component of the success of pulsar timing relies on understanding how the interstellar medium affects timing accuracy. Current pulsar timing models only account for the large-scale dispersion delays from the ISM. As a result, the comparably small-scale propagation effects caused by scattering are partially absorbed into the dispersion delay component of the model. Here we present the results of a simulation that demonstrates how the exclusion of scattering from pulsar timing models can lead to a loss of both timing precision and accuracy, resulting in timing discrepancies on the order of microseconds.

Eleanor H. Van Buren  
COMPARATIVE LITERATURE and ENGLISH

Academic Advisor and Project Mentor: Jed Deppman, Comparative Literature

‘Reading’ the Tracking Shot in Nadja and Marienbad

My research compares the seminal French works, André Breton’s novel, Nadja (1928), and Alain Resnais’s film, L’année dernière à Marienbad (1961). Both works feature first-person limited, male narrators whose memories return to a specific location: a time and place (Paris, 1926 and Marienbad, the year before) where the main concern is a sexual relationship with a desired woman. My essay imagines these narratives as progressions through a ‘memory-scape,’ where the narrators, Breton and X, enter into their memories as an interrogative state of self-introspection, but also self-defensive assertion, as to the nature of their relationships to Nadja and A, respectively. The memory-scape serves as the specific location of the men’s memories, and it is where a considerable amount of the plot takes place. In Nadja, Breton’s memory-scape is Parisian streets, where he promenades and ruminates on life with Nadja. In Marienbad, X sequesters A the gardens and his fantasies abound. Considering the fields of narrative inquiry in Nadja and film philosophy in Marienbad, I conceptualize the cinematic technique of the tracking shot as a framework in which to visualize Breton and X within their memory-scapes. In conversation with film scholar Hunter Vaughan, my analysis posits a nuanced view of the shared ontology of Nadja and Marienbad and comments on the psychological boundaries of the first-person limited narrators and the technical boundaries of the distinct mediums.

Natalie Ventura Villasana  
CREATIVE WRITING

Academic Advisor: Sylvia Watanabe, Creative Writing  
Project Mentor: Harrod Suarez, English

Violence in the Feed: Accelerated Productions and Circulations of Police Brutality Videos

The purpose of this project is to examine the relationship between social media platforms’ content regulation and norms of anti-Black imagery in the newsfeed by analyzing Twitter metadata from police brutality videos as a case study. The research is intended to evaluate how social media platforms mediate user-generated visual content, and how functionalities of the platforms can alter the meaning of the violent images posted and circulated with the intent to raise consciousness. Primary sources included tracking hashtag volume of the
names of people killed by police, including Sandra Bland, Sam Dubose, Alton Sterling, and Philando Castile. Though Facebook and Twitter brand themselves as concerned with “an open and connected world,” their paradigm of displaying instant, perpetually new information enables the trending of violent videos and image content, but obfuscates roots of systemic violence against Black people in the United States. Hopefully this research will support growing scholarship of social media platforms as governing entities in visual culture as the rapid exchange of digital images becomes more and more ubiquitous.

Alejandro Vera
ANTHROPOLOGY

Academic Advisor: Crystal Biruk, Anthropology
Project Mentor: Jason Belitsky, Chemistry & Biochemistry

Synthetic Melanin Filtration Agents

Melanins, the biological pigments have a range of interesting properties that make them potentially beneficial as water purification agents. Natural and synthetic melanins are known to bind a variety of organic compounds and metal ions, including lead. As seen in current events like Flint, Michigan and the escalation of lead in water reports in Chicago public schools, lead is continuing health concern in drinking water within our communities. Working in collaboration with a local company, Nanotech Innovations, we are exploring synthetic melanin in combination with a variety of other materials, including carbon nanotubes, polymers, and activated carbon, as filtration agents for heavy metals and organic dyes. We are currently focusing on a composite materials for lead filtration. We are able to test the effects of synthetic melanin in different lead concentrations through oxidation of L-Dopa in the presence of supporting materials, such as carbon nanotubes on activated carbon (CNT/AC), supplied by Nanotech Innovations. The resulting products are used to filter lead solutions that were equilibrated for 18 hours and analyzed through atomic absorption spectroscopy, and compared to the supporting materials without synthetic melanin. Promising initial results led our lab into finding options in optimizing lead binding through changes in the oxidizing step of L-Dopa. We found that oxidizing L-Dopa with NH4 and 10% Na2CO3 filtered >50% of lead at 150 mM Pb solution. We are continuing these studies with different composite materials like polymers and alumina. This presentation will describe our efforts to optimize lead filtration.

Daniel West
COMPARATIVE LITERATURE

Academic Advisor: Jed Deppman, Comparative Literature and English
Project Mentors: Jed Deppman, Comparative Literature and English; Claire Solomon, Hispanic Studies

Georges Bataille: A Body in Motion

Georges Bataille (1897-1962) archivist, editor, sociologist, philosopher, pamphleteer and writer of avant garde and erotic fiction has become one of the major antecedents to the contemporary age of critical theory. His work seems to address as many subjects as possible, and lead to each a bizarre, but full-bodied response. As an independent social scientist, he brought novel insights into the realms of religious and sexual studies. As a political analyst, he sought a “third position” between fascism and communism. As an editor, he sought to unify the publication of French’s academic and outré voices. And yet, it is his penchant for the weird, the extreme and the taboo in his attempts to refound erotic and mythological prose that has seemed to rise to the surface, in spite of its relative obscurity, if not suppression during the life of the author. This presentation will attempt to explain why I think this is the case, as well as what this implies for readers of this diffuse yet powerful body of work.

Alex Wilder
MUSICAL STUDIES

Academic Advisor: Jan Miyake, Music Theory
Project Mentor: Ben Geyer, Music Theory

Responsible Songwriting: Problems of Ethics and Negotiation in Collaborative Autoethnographic Composition
This thesis responds to and builds on the concept of documentary songwriting, a method first developed by composer Malcolm P. Brooks in his 2013 dissertation, *Autoethnography of a Composer with a New Composing Method*. In documentary songwriting, a composer works with a participant to craft a song out of spoken words. The participant (or “story source”) tells to the composer (or “musical guide”) a personal story, which the musical guide transcribes verbatim. The two songwriters then break up the text visually, pick out salient lines, and speak and sing through chosen lines and phrases to develop the elements of a song. The process must be sufficiently well defined so as to provide consistent direction, yet flexible enough to accommodate a vast array of story sources and situations, as well as the variety of songs it could potentially produce. This process raises a number of persistent questions. For instance, how can a musical guide ethically and accurately help a story source to represent their own story in a song? Or, more broadly, how can a guide optimize documentary songwriting sessions in terms of depth of material, excellence of craft, and fulfillment for the participant? Through a review of Brooks’ initial methodology, documentation of subsequent advances in the technique, and an examination of relevant literature, this study explores solutions to these problems.

Hunter Zepeda

RELIGION and ECONOMICS

Academic Advisors: Charles Lockwood, Religion; Barbara Craig, Economics
Project Mentors: Charles Lockwood and Margaret Kamitsuka, Religion

**Gustavo Gutiérrez’s Liberation Theology: A Hermeneutic of Utopian Hope**

Gustavo Gutiérrez has spurred and legitimated burgeoning theological reflection from the underside of history: liberation theology. Though scholarship has been extensive on the topic, concepts vital to his theological project remain mired in essentialization and simplifications. Such inconclusive discourse has manifested itself into dangerous syntheses that threaten to undermine the efficacy of liberation theology. A primary indictment of Gutiérrez’s theology is the emphasis on politic and how it threatens the entire project. In this paper I will look at a largely ignored mediating principle, Utopian Hope, and how it serves as a discursive paradigm which avoids two problematic extremes: over-spiritualization with no concern for the this-worldly, and political messianism which lacks a grounding in a more fundamental spiritual framework. Utopian hope and Church instantiate a profound mediating resource which link spirit and action in a careful balance.
Performances
Schedule of Senior Recitals and Exhibitions that follow the Senior Symposium
CONGRATULATIONS TO OUR CONSERVATORY SENIORS WHO PERFORM THEIR SENIOR RECITALS IN APRIL AND MAY.

FRIDAY, APRIL 28, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Performer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 PM</td>
<td>Ruby Dibble, voice</td>
<td>Kulas Recital Hall</td>
</tr>
<tr>
<td>8:00 PM</td>
<td>Sohyoung Lee, violin</td>
<td>Kulas Recital Hall</td>
</tr>
<tr>
<td>8:00 PM</td>
<td>Ningjialu Liu, piano</td>
<td>Warner Concert Hall</td>
</tr>
</tbody>
</table>

SATURDAY, APRIL 29, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Performer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 PM</td>
<td>Felisien Felisien, piano</td>
<td>Warner Concert Hall</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Christine Showalter, violin</td>
<td>Kulas Recital Hall</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Santiago Pizzaro, voice</td>
<td>Warner Concert Hall</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>Man Lai Lei, piano</td>
<td>Warner Concert Hall</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>Dylan Fabas, voice</td>
<td>Kulas Recital Hall</td>
</tr>
<tr>
<td>8:00 PM</td>
<td>Paul Bailey, jazz trumpet</td>
<td>Cat in the Cream Coffeehouse</td>
</tr>
</tbody>
</table>

SUNDAY, APRIL 30, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Performer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 PM</td>
<td>Moises Lopez Ruiz, flute</td>
<td>David H. Stull Recital Hall</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>Aoma Caldwell, cello</td>
<td>Kulas Recital Hall</td>
</tr>
<tr>
<td>1:30 PM</td>
<td>John Minor, percussion</td>
<td>Warner Concert Hall</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Jin Sol Oh, violin</td>
<td>Kulas Recital Hall</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>Benjamin Cruz, jazz guitar</td>
<td>Cat in the Cream Coffeehouse</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>Dana Johnson, violin</td>
<td>Kulas Recital Hall</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>Morgan Low, trumpet</td>
<td>Warner Concert Hall</td>
</tr>
<tr>
<td>8:00 PM</td>
<td>Griffin Jennings, TIMARA</td>
<td>David H. Stull Recital Hall</td>
</tr>
<tr>
<td>8:00 PM</td>
<td>Pok Yee Pauline Park, composition</td>
<td>Warner Concert Hall</td>
</tr>
</tbody>
</table>

TUESDAY, MAY 2, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Performer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 PM</td>
<td>Jordan McBride, jazz bass</td>
<td>David H. Stull Recital Hall</td>
</tr>
</tbody>
</table>

WEDNESDAY, MAY 3, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Performer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:30 PM</td>
<td>Olivia Gutfreund, violin</td>
<td>David H. Stull Recital Hall</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>Jun Hee Shin, piano</td>
<td>Warner Concert Hall</td>
</tr>
</tbody>
</table>

THURSDAY, MAY 4, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Performer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:30 PM</td>
<td>Xiaotong Yu, piano</td>
<td>David H. Stull Recital Hall</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>Shiyu Yang, piano</td>
<td>David H. Stull Recital Hall</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>Corey Burris, organ</td>
<td>Fairchild Chapel / Finney Chapel</td>
</tr>
</tbody>
</table>

FRIDAY, MAY 5, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Performer</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:30 PM</td>
<td>Kelsey Bannon, percussion</td>
<td>David H. Stull Recital Hall</td>
</tr>
<tr>
<td>4:30 PM</td>
<td>Christa Cole, violin</td>
<td>Kulas Recital Hall</td>
</tr>
<tr>
<td>6:30 PM</td>
<td>Carina Wu, piano</td>
<td>Warner Concert Hall</td>
</tr>
</tbody>
</table>
8:00 PM  Noelle Marty, double bass  David H. Stull Recital Hall
8:00 PM  Christine Jay, baroque flute  Kulas Recital Hall
8:00 PM  Patrick Graney, jazz percussion  The Birenbaum
8:00 PM  Chloe Desouza, piano  Warner Concert Hall

Events are subject to scheduling changes. For the most up-to-date schedule, please visit [http://new.oberlin.edu/calendar/](http://new.oberlin.edu/calendar/) or call Concert Production at 440.775.8610.

GRADUATING SENIORS’ ART EXHIBITION

Friday, May 19th - Sunday, May 21st
1:00 - 5:00pm
Richard D. Baron Gallery
65. E. College Street

A group exhibition featuring the work of the studio art class of 2017.
Exhibitors include: Piera Bochner, Isaac Chabon, Jasper Clarkberg, Isa Diaz-Barriga, Siobhan Furnary, Ben Garbus, Mimi Leggett, Robby Lewis-Nash, Claire Stevens-Luneau, Sam Meier, Maggie Middleton, Adam Schachner, Zoe Schlanger, Matthew Simon, Emmett Sponheim, Shani Strand, and Ellie Tremayne.