

# SENIOR SYMPOSIUM

APRIL 14, 2023

Warren Hunting Smith Library and Melly Academic Center

# SHARE YOUR PASSIONS

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**Center for Teaching and Learning**



HOBART AND WILLIAM SMITH COLLEGES



HOBART AND WILLIAM SMITH  
COLLEGES

Office of the President

Dear Members of the Hobart and William Smith Community,

I am delighted to welcome you to the annual Senior Symposium - a wonderful tradition that celebrates the sustained and sophisticated work of our seniors and Master's degree students who, under the mentorship of faculty, push the boundaries of their disciplines and enhance the intellectual community at HWS.

This year's program features an impressive 103 presentations delivered by 93 student presenters. Whether in the classroom or studio, the library or laboratories, in the Geneva community or across the globe - the work of HWS students gives voice to new ideas and conversations.

On behalf of the campus, I congratulate all of the participants in this year's Symposium and thank them for their commitment to our community. I am grateful to the many members of the faculty who have engaged with these students and have encouraged them to pursue this challenging and vital work. And finally, it is with deep appreciation that I commend the Center for Teaching and Learning and Ruth Shields and her staff for the vision and leadership in making the Senior Symposium a highlight of the spring semester and pride point for the Colleges.

Sincerely,

Mark D. Gearan  
President



HOBART AND WILLIAM SMITH  
COLLEGES

The Office of Academic and Faculty Affairs

Dear HWS Community,

This is the fourteenth year that the Senior Symposium provides an important occasion for us to reflect on the value of a Hobart and William Smith education and to appreciate the learning, insights, talents, and developments of our community, and I am excited to celebrate the accomplishments, progress, and success in the scholarly and creative works of our students here at Hobart and William Smith Colleges.

I hope you will all join me in attending a variety of student presentations throughout the day. This event highlights what is so special about a liberal arts education at HWS – the achievements of our students, the central involvement of our faculty and staff, the interdisciplinarity and multiple approaches to tackling the pressing issues of the day, and the high standards and expectations for rigorous intellectual engagement and debate. As the Provost and Dean of Faculty, I welcome you to join us in these presentations, discussions, and discoveries, and I applaud the student presenters for being shining examples of a Hobart and William Smith education.

I also want to express my gratitude to my faculty and staff colleagues who have provided invaluable mentorship as they have nurtured these students and their work throughout their time at the Colleges. Without your support, advice, and encouragement, this experience would not have been nearly as successful. Finally, I want to thank those who have dedicated time, energy, and effort by presenting their work, moderating panels, attending panels, and providing a voice of congratulations and support.

Sincerely,

*Sarah Kirk*

Sarah R. Kirk  
Provost and Dean of Faculty



HOBART AND WILLIAM SMITH COLLEGES

Offices of the Hobart and William Smith Deans

Members of the HWS Community:

The Senior Symposium is an exciting event that reflects and honors the depth and breadth of engagement among Hobart and William Smith students in a diverse spectrum of academic and creative interests. It makes visible that which is often invisible: the long hours and hard work students dedicate to the intellectual journey during their four years at the Colleges. Most importantly, it provides an opportunity for students, under the guidance of advisors, to engage each other as teachers and learners.

As your Deans, we join with the Center for Teaching and Learning in applauding those who are participating in the fourteenth Senior Symposium as presenters. This is an important academic achievement that they now have as part of their legacy. We applaud the faculty and staff who will serve as panel moderators. The Deans also join in welcoming of all members the HWS community to this wonderful demonstration of student teaching and learning.

Sincerely,

Lisa Kaenzig, Ph. D.
Dean
William Smith College

Lisa Salter, Ph. D.
Assistant Dean
William Smith College

Kelly Payne, Ph. D.
Assistant Dean
William Smith College

Scott Brophy, Ph. D.
Dean
Hobart College

David Mapstone
Associate Dean
Hobart College

Joe Mink, Ph. D.
Assistant Dean
Hobart College



HOBART AND WILLIAM SMITH  
COLLEGES

Center for Teaching and Learning

Dear Hobart & William Smith Colleagues, Students, and Friends:

This year, the CTL has brought faculty and staff together for two apparently distinct conversations: one, about the dazzling rise of artificial intelligence and what this will mean for the academy; and the other, about the transformative impacts of relationship-rich education, both highlight what it is that is so special about the liberal arts: that the secret ingredient to a vital and engaging education is always the human element.

Senior Symposium brings the human element to life for a day of exciting presentations, on subjects as diverse as the role of failure in successful entrepreneurship to the power of citizen science, from a reexamination of the Vikings to the history of the Auburn prison riots, from cancer research during COVID to the possible uses of movement as a treatment for Neuro-Degenerative diseases, from queer poetics to the comedy stylings of Kevin Lima.

What do all these presentations have in common? None of them would have been possible without the deep relationships students have built with faculty and staff mentors and with one another over their time here, relationships that have brought different ideas into conversation with one another in challenging and complex ways. So, as much as this day is a celebration of our amazing Seniors, it is also a celebration of our connections and of our humanity.

And speaking of relationships, we are thrilled to be welcoming you alongside our two newest staff members: Shanelle France (WS 11) and Thomas Mascia (HO 14), alums who created such very important connections in their time as students that they have returned to campus to support a new generation of students.

Thank you, and enjoy the day.

The staff of the Center for Teaching and Learning:

Ruth Shields, Shanelle France, Susan Hess, Ingrid Keenan, and Thom Mascia

## **ACKNOWLEDGEMENTS**

The fourteenth annual Senior Symposium was made possible by the vision, leadership, and efforts of many in the Hobart and William Smith community.

Office of Academic and Faculty Affairs

Office of the President

Offices of the Hobart and William Smith Deans

Office of Communications

IT Services

Center for Teaching and Learning

Shanelle France, Susan Hess, Ingrid Keenan, Thom Mascia, Ruth Shields

CTL Student Staff

JT Anderson, William Lewis, Gabriela Martinez, Nicole Pendleton

Presentation Workshop Facilitators

Peter Budman, Kayla Eberhardt, Renee Grant, Sara Greenleaf, Casey Puccini, Students  
from Maggie Werner's WRRH 420

## **RESEARCH SUPPORT AND AWARDS**

Symposium students have received generous support for their academic projects from the following organizations, programs, and funds:

Art Patchett

Blocker Fellowship

Botanical Society of America

Cornell AgriTech Research Venture Fund

Gilman International Grant Scholarship

Goldwater Scholarship

HWS Chemistry Department

National Science Foundation

Office of Academic and Faculty Affairs

Tapper Funds

United States Hatch Funds

William Smith Deans Office

Senior  
Symposium  
2023  
Presenters



## SENIOR SYMPOSIUM 2023 PRESENTERS

Presenter	Department/Program	Sponsor	Panel Time	Room
Albreski, Ian	English	Rob Carson	9:50 - 10:50	Writers' Nook
Almasian, Taline	Environmental Studies	Beth Kinne	1:20 - 2:20	Geneva Room
Amaral, Lucas	Psychological Science	Jamie Bodenlos	3:40 - 4:40	Sanford Room
Ashe, Ethan	Geoscience	Tara Curtin	3:40 - 4:40	Geneva Room
Bajaj, Needhi	Political Science	DeWayne Lucas	11:00 - 12:00	Learning Studio 3
Barnard, Samuel	International Relations	Stacey Philbrick Yadav	12:10 - 1:10	Learning Studio 3
Barnosky, Alex	Sociology	H. Wesley Perkins	8:40 - 9:40	Writers' Nook
Barsky, Andrew	Mathematics	Jonathan Forde	8:40 - 9:40	Learning Studio 3
Bautista, Litzzy	William Smith Dean's Office	Lisa Kaenzig	2:30 - 3:30	Learning Studio 3
Bennett, Brendon	Political Science	Edward Quish	11:00 - 12:00	Sanford Room
Berg, Katrine	Sociology	H. Wesley Perkins	9:50 - 10:50	Sanford Room
Biswas, Hrithik	Psychological Science	Emily Fisher	1:20 - 2:20	Geneva Room
Bixby, Hannah	Sociology	H. Wesley Perkins	3:40 - 4:40	Writers' Nook
Blakely-Armitage, Seneca	Sociology	H. Wesley Perkins	9:50 - 10:50	Sanford Room
Bott, Grace	Economics	Sooyoung Lee	2:30 - 3:30	Writers' Nook
Brown, Katherine	Psychological Science	Julie Kingery	9:50 - 10:50	Learning Studio 3
Burkhart, Christian	Environmental Studies	Beth Kinne	3:40 - 4:40	Writers' Nook
Calderón, Samuel	International Relations	Stacey Philbrick Yadav	11:00 - 12:00	Writers' Nook
Canney, Alisa	Sociology	H. Wesley Perkins	11:00 - 12:00	Sanford Room

## SENIOR SYMPOSIUM 2023 PRESENTERS

Presenter	Department/Program	Sponsor	Panel Time	Room
Carr, Caitlin	Writing and Rhetoric	Maggie Werner	1:20 - 2:20	Writers' Nook
Cassano, Cole	Music	Charity Lofthouse	3:40 - 4:40	Geneva Room
Catlin, Ryan	Environmental Studies	Beth Kinne	2:30 - 3:30	Writers' Nook
Chien, Misty	Physics	Leslie Hebb	9:50 - 10:50	Learning Studio 3
Cilano, Julia	Critical Sexuality and Queer Studies	Michelle Martin-Baron	8:40 - 9:40	Sanford Room
Coburn, Taylor	Chemistry	Erin Pelkey	1:20 - 2:20	Sanford Room
Colacino, McKenna	Sociology	H. Wesley Perkins	11:00 - 12:00	Sanford Room
Cunningham Baker, Hudson	Psychological Science	Emily Fisher	11:00 - 12:00	Learning Studio 3
Diokhane, Fatou	William Smith Dean's Office	Lisa Kaenzig	2:30 - 3:30	Learning Studio 3
Doherty, Zoe	Educational Studies	Gemma Cooper-Novack	2:30 - 3:30	Sanford Room
Dutton, Molly	Sociology	H. Wesley Perkins	1:20 - 2:20	Learning Studio 3
Dwyer, Alexandra	Geoscience	Neil Laird	1:20 - 2:20	Geneva Room
Eliot, Isabella	Writing and Rhetoric	Maggie Werner	2:20 - 3:30	Learning Studio 3
Equinozzi, Kate	International Relations	Stacey Philbrick Yadav	11:00 - 12:00	Sanford Room
Farwell, Korina	Environmental Studies	Beth Kinne	9:50 - 10:50	Geneva Room
Ferguson, Sofia	Psychological Science	Jamie Bodenlos	12:10 - 1:10	Learning Studio 3
Ferreira, Denelis	Sociology	H. Wesley Perkins	9:50 - 10:50	Sanford Room
Friedman, Isabelle	Psychological Science	Julie Kingery	9:50 - 10:50	Learning Studio 3
Gold, Natalie	Educational Studies	Gemma Cooper-Novack	3:40 - 4:40	Sanford Room

## SENIOR SYMPOSIUM 2023 PRESENTERS

Presenter	Department/Program	Sponsor	Panel Time	Room
Gold, Natalie	Women's Studies	Michelle Martin-Baron	12:10 - 1:10	Writers' Nook
Golden, Johanna	International Relations	Stacey Philbrick Yadav	1:20 - 2:20	Sanford Room
Grieco, Michael	Educational Studies	Gemma Cooper-Novack	3:40 - 4:40	Sanford Room
Griffis, Erin	Environmental Studies	Robinson Murphy	3:40 - 4:40	Writers' Nook
Guan, Cameron	Chemistry	Justin Miller	3:40 - 4:\$0	Sanford Room
Harrison, Rielly	Chemistry	Justin Miller	9:50 - 10:50	Geneva Room
Heekin, Shayla	Writing and Rhetoric	Maggie Werner	8:40 - 9:40	Writers' Nook
Higgins, Aden	American Studies	Ani Mukherji	12:10 - 1:10	Sanford Room
Hill, Laura	Writing and Rhetoric	Maggie Werner	12:10 - 1:10	Writers' Nook
Hoffman, Beatrice	Dance	Donna Davenport	1:20 - 2:20	Writers' Nook
Humphrey, Paige	American Studies	Ani Mukherji	2:30 - 3:30	Learning Studio 3
Jackson, Lauren	Psychological Science	Jamie Bodenlos	2:30 - 3:30	Learning Studio 3
Johnston, Kelsey	Sociology	H. Wesley Perkins	3:40 - 4:40	Learning Studio 3
Kanungo, Sreyan	Entrepreneurial Studies	Craig Talmage	11:00 - 12:00	Geneva Room
Kehoe, Meredith	Educational Studies	Gemma Cooper-Novack	2:30 - 3:30	Sanford Room
Killy, Owen	Psychological Science	Julie Kingery	9:50 - 10:50	Geneva Room
Knudson, Angelica	Educational Studies	Gemma Cooper-Novack	2:30 - 3:30	Sanford Room
Koepp, William	Political Science	Edward Quish	3:40 - 4:\$0	Learning Studio 3
Koepp, William	Writing and Rhetoric	Maggie Werner	1:20 - 2:20	Writers' Nook

## SENIOR SYMPOSIUM 2023 PRESENTERS

<b>Presenter</b>	<b>Department/Program</b>	<b>Sponsor</b>	<b>Panel Time</b>	<b>Room</b>
Konstantinou, Irini	Writing and Rhetoric	Maggie Werner	12:10 - 1:10	Writers' Nook
LaPlante, Mia	Sociology	H. Wesley Perkins	8:40 - 9:40	Writers' Nook
Lewis, Ethan	Chemistry	Kristin Slade	3:40 - 4:40	Geneva Room
Lewis, William	Economics	Christina Houseworth	12:10 - 1:10	Learning Studio 3
Liess, Tori	Psychological Science	Jamie Bodenlos	9:50 - 10:50	Sanford Room
Lima, Kevin	History	Colby Ristow	8:40 - 9:40	Sanford Room
Lima, Kevin	Media and Society	Harry Gu	3:40 - 4:40	Learning Studio 3
Lima, Kevin	Media and Society	Rebecca Burditt	9:50 - 10:50	Writers' Nook
Lunken, Isabel	Art and Architecture	Jeffery Blankenship	12:10 - 1:10	Sanford Room
Lussier, Allison	Dance	Donna Davenport	9:50 - 10:50	Writers' Nook
Marola, Abigail	Geoscience	Dave Finkelstein	1:20 - 2:20	Sanford Room
McElduff, Colleen	Educational Studies	Gemma Cooper-Novack	2:30 - 3:30	Sanford Room
McGrath, Hannah	Geoscience	Nan Crystal Arens	1:20 - 2:20	Sanford Room
McGriff, Pete	Art and Architecture	Liliana Leopardi	9:50 - 10:50	Writers' Nook
Miller, Nicole	Educational Studies	Gemma Cooper-Novack	3:40 - 4:40	Sanford Room
Montecalvo, Jason	Writing and Rhetoric	Maggie Werner	8:40 - 9:40	Writers' Nook
Moriarty, Andrew	Biology	Sigrid Carle	8:40 - 9:40	Learning Studio 3
Nieves, Gabriela	Sociology	H. Wesley Perkins	1:20 - 2:20	Learning Studio 3
Nusom, Matthew	Environmental Studies	Thomas Drennen	11:00 - 12:00	Geneva Room

## SENIOR SYMPOSIUM 2023 PRESENTERS

<b>Presenter</b>	<b>Department/Program</b>	<b>Sponsor</b>	<b>Panel Time</b>	<b>Room</b>
O'Connell, Clare	Sociology	H. Wesley Perkins	9:50 - 10:50	Sanford Room
Palmisciano, Sarah	Religious Studies	Michael Dobkowski	11:00 - 12:00	Writers' Nook
Perich, Thomas	American Studies	Ani Mukherji	8:40 - 9:40	Sanford Room
Pratt, Katie	Dance	Donna Davenport	3:40 - 4:40	Writers' Nook
Rajkarnikar, Avi	International Relations	Stacey Philbrick Yadav	2:30 - 3:30	Writers' Nook
Reed, Emily	Environmental Studies	Beth Kinne	11:00 - 12:00	Learning Studio 3
Reilly, Maeve	Environmental Studies	Beth Kinne	1:20 - 2:20	Learning Studio 3
Rose, Elana	Educational Studies	Gemma Cooper-Novack	3:40 - 4:40	Sanford Room
Rueegg, Liann	Dance	Donna Davenport	12:10 - 1:10	Learning Studio 3
Sanders, Madison	Writing and Rhetoric	Maggie Werner	11:00 - 12:00	Geneva Room
Sax, Haley	Chemistry	Justin Miller	9:50 - 10:50	Geneva Room
Schwappach, Logan	International Relations	Stacey Philbrick Yadav	12:10 - 1:10	Writers' Nook
Sellah, Niima	Sociology	H. Wesley Perkins	3:40 - 4:40	Learning Studio 3
Shaw, Alison	Educational Studies	Gemma Cooper-Novack	3:40 - 4:40	Sanford Room
Shea, Taylor	Religious Studies	Richard Salter	12:10 - 1:10	Sanford Room
Sipos, Erika	Biology	Shannon Straub	1:20 - 2:20	Geneva Room
Slusser, Brayton	Writing and Rhetoric	Maggie Werner	1:20 - 2:20	Learning Studio 3
Snetsinger, Robin	Art and Architecture	Michael Tinkler	8:40 - 9:40	Sanford Room
Sobel, Samuel	Environmental Studies	Beth Kinne	3:40 - 4:40	Geneva Room

## SENIOR SYMPOSIUM 2023 PRESENTERS

<b>Presenter</b>	<b>Department/Program</b>	<b>Sponsor</b>	<b>Panel Time</b>	<b>Room</b>
Sorbello, Eleanor	Classics	Leah Himmelhoch	11:00 - 12:00	Writers' Nook
Soulier, Laurel	Educational Studies	Gemma Cooper-Novack	2:30 - 3:30	Sanford Room
Stier, Ella	Writing and Rhetoric	Maggie Werner	1:20 - 2:20	Writers' Nook
Tate, Joseph	Environmental Studies	Beth Kinne	3:40 - 4:40	Sanford Room
Tattan, Tanner	American Studies	Ani Mukherji	12:10 - 1:10	Sanford Room
Tesler, Benjamin	Environmental Studies	Beth Kinne	11:00 - 12:00	Writers' Nook
Tsubakiyama, Konoko	Art and Architecture	Gabriella D'Angelo	9:50 - 10:50	Learning Studio 3
Weber, Tess	Chemistry	Christine de Denus	8:40 - 9:40	Learning Studio 3
Wei, Zhengrui	Environmental Studies	Beth Kinne	2:30 - 3:30	Writers' Nook
Weier, Bridget	Writing and Rhetoric	Maggie Werner	11:00 - 12:00	Geneva Room
Weiss, Greta	Psychological Science	Emily Fisher	11:00 - 12:00	Learning Studio 3
Wright, Morgan	Sociology	H. Wesley Perkins	9:50 - 10:50	Geneva Room

Senior  
Symposium  
2023  
Schedule

## Learning Studio 3

### Tools and Treatments

*Moderator: Lisa Cleckner, Director of the Finger Lakes Institute*

Time	Presenters	Abstract Title	Department/Program
8:40 - 9:40	Barsky, Andrew	Fourier and Wavelet Analysis	Mathematics
	Moriarty, Andrew	From the Emergency Room to the Lab: A Story of Cancer Research and Perseverance in a Time of COVID	Biology
	Weber, Tess	Synthesis and Characterization of Molecular Wire Candidates	Chemistry
	Questions & Answers		

### Searching and Finding

*Moderator: Mark Olivieri, Associate Professor of Music*

Time	Presenters	Abstract Title	Department/Program
9:50 - 10:50	Brown, Katherine Friedman, Isabelle	Dispositional Mindfulness, Anxiety, and Depression in Predicting College Students' Sleep during Covid-19	Psychological Science
	Chien, Misty	Transiting Exoplanets and Starspots: Identifying Kepler K2 Objects with Starspot Crossing Features	Physics
	Tsubakiyama, Konoko	In Search of "Home"	Art and Architectural Studies
	Questions & Answers		



## Learning Studio 3

### Putting Our Heads Together

*Moderator: Kristen Brubaker, Associate Professor of Environmental Studies*

Time	Presenters	Abstract Title	Department/Program
11:00 - 12:00	Bajaj, Needhi	American Political Polarization and the Role of the Conservative Media	Political Science
	Cunningham Baker, Hudson	The Damoclean Threat of Climate Catastrophe: The Impacts of Climate Cafes on Eco-Anxiety	Psychological Science
	Reed, Emilyn	The Power of Citizen Science	Environmental Studies
	Weiss, Greta	The Influence of Group Discussion on Moral Decisions	Psychological Science
	Questions & Answers		

### "All Things Considered"

*Moderator: Lisa Kaenzig, Dean of William Smith College*

Time	Presenters	Abstract Title	Department/Program
12:10 - 1:10	Barnard, Samuel	Space, Stories, and State Power in Jordan	International Relations
	Ferguson, Sofia	The Role of Case Management within Medication Assisted Treatment	Psychological Science
	Lewis, William	Quantifying Racial Disparities in Home Environmental Quality	Economics
	Rueegg, Liann	Movement as a Treatment for Neuro-Degenerative Diseases	Dance
	Questions & Answers		

## Learning Studio 3

### Community Questions

*Moderator: Kelsey Ward, Assistant Professor of Philosophy*

Time	Presenters	Abstract Title	Department/Program
1:20 - 2:20	Dutton, Molly	Short-Term Rentals in the Finger Lakes: Impacts on Community and Tourism	Sociology
	Nieves, Gabriela	Adjusting to a New Life: Understanding Acculturative Stress through the Stories of Geneva Latinx Geneva Residents	Sociology
	Reilly, Maeve	The Value of Bees as Sustainable Community Models	Environmental Studies
	Slusser, Brayton	Folk Fest 2024?	Writing and Rhetoric
	Questions & Answers		

### The Gender Factor

*Moderator: Becca Barille, Vice President for Campus Life and Dean of Students*

Time	Presenters	Abstract Title	Department/Program
2:30 - 3:30	Bautista, Litzy Diokhane, Fatou	PLEN: Preparing You to Lead	William Smith Dean's Office
	Eliot, Isabella	The Glass Runway: Gender Inequality in the Fashion Industry	Writing and Rhetoric
	Humphrey, Paige	White Women's Worry: American Women and True Crime Podcasts	American Studies
	Jackson, Lauren	The Impacts of Injury on Female Student-Athletes' Depression Levels	Psychological Science
	Questions & Answers		

## Learning Studio 3

### To Extremes

*Moderator: Matthew Church, Visiting Assistant Professor of Chemistry*

Time	Presenters	Abstract Title	Department/Program
3:40 - 4:40	Johnston, Kelsey	The Polarization of Abortion, Gun Control, and Immigration	Sociology
	Koepp, William	A Burning World: The Past, Present, and Future of the Environmental Movement	Political Science
	Lima, Kevin	Nicholas Cage: Good or Bad?	Media and Society
	Sellah, Niima	Portrayal of Abductions in Entertainment	Sociology
	Questions & Answers		

## Geneva Room

### Interaction and Intersection

*Moderator: Jessica Hayes-Conroy, Associate Professor of Women's Studies*

Time	Presenters	Abstract Title	Department/Program
9:50 - 10:50	Farwell, Korina	Incorporation of Environmental Education in New York Public School Curriculum	Environmental Studies
	Harrison, Rielly Sax, Haley	Expanding the Possibilities for Anticancer Drugs	Chemistry
	Killy, Owen	Impacts of Adolescents' Sleep Quality	Psychological Science
	Wright, Morgan	Community Strength through Interaction	Sociology
	Questions & Answers		

### Find Your Passions

*Moderator: Rebecca Burditt, Associate Professor of Media and Society*

Time	Presenters	Abstract Title	Department/Program
11:00 - 12:00	Kanungo, Sreyan	Failure: The Entrepreneur's Gift to the Economy	Entrepreneurial Studies
	Nusom, Matthew	Gone Fishing: Experimental Environmental Studies and the HWS Angler's Handbook	Environmental Studies
	Sanders, Madison	<i>Open House Magazine</i>	Writing and Rhetoric
	Weier, Bridget	<i>Now Boarding : A Travel Magazine</i>	Writing and Rhetoric
	Questions & Answers		

## Geneva Room

### It's Not Easy Being Green

*Moderator: Sarah Kirk, Provost and Dean of Faculty*

Time	Presenters	Abstract Title	Department/Program
1:20 - 2:20	Almasian, Taline	The Campus Lawn	Environmental Studies
	Biswas, Hrithik	Need for Green Spaces: A Psychological Analysis through the Lens of Costa Rica	Psychological Science
	Dwyer, Alexandra	The Relationship Between Greenland Atmospheric Rivers and Transitions in the Phase of the North Atlantic Oscillation	Geoscience
	Sipos, Erika	A Phylogenetic and Biogeographical Study of Parsonsia (Apocynaceae)	Biology
	Questions & Answers		

### In the Long Term

*Moderator: Robinson Murphy, Visiting Assistant Professor of Environmental Studies*

Time	Presenters	Abstract Title	Department/Program
3:40 - 4:40	Ashe, Ethan	Risk Assessment of Landslides in the Canandaigua Valley	Geoscience
	Cassano, Cole	On Very, Very Lengthy Music: Its Aesthetics, Ethics, and Archival Praxis	Music
	Lewis, Ethan	Fluorescent Imaging as a Tool for Automated Weeding	Chemistry
	Sobel, Samuel	Decarbonizing NYC: Public Transportation or Electric Vehicles?	Environmental Studies
	Questions & Answers		

## Sanford Room

### New Narratives

*Moderator: Michelle Martin-Baron, Associate Professor of Women's Studies*

Time	Presenters	Abstract Title	Department/Program
8:40 - 9:40	Cilano, Julia	Redactive Queer Poetics and the Resurrecting of Queer Ghosts	Critical Sexuality and Queer Studies
	Lima, Kevin	History of a Traitor by a Traitor	History
	Perich, Thomas	My Hero or Yours? Looking at Monuments of American Leaders Overseas	American Studies
	Snetsinger, Robin	"Vikings": Raiders or Traders?	Art and Architectural Studies
	Questions & Answers		

### Mapping Patterns

*Moderator: Chrissy Jacobs, Coordinator of Teacher Certification and Accreditation*

Time	Presenters	Abstract Title	Department/Program
9:50 - 10:50	Berg, Katrine Blakely-Armitage, Seneca	Historical Patterns of Disinvestment Reshaping Urban Heat Maps	Sociology
	Ferreira, Denelis	Subgroup Disparities in Reference to Tobacco and Vaping Products	Sociology
	Liess, Tori	Factors Influencing the Comorbidity of Depression/Anxiety and Heart Conditions	Psychological Science
	O'Connell, Clare	Mapping Mental Health Psychotherapy Resources in Ontario County, NY	Sociology
	Questions & Answers		

## Sanford Room

### Institutional Impact

*Moderator: Michael Tinkler, Associate Professor of Art and Architecture*

Time	Presenters	Abstract Title	Department/Program
11:00 - 12:00	Bennett, Brendon	Security: An Institutional Perspective through the Lens of the New Deal Era	Political Science
	Canney, Alisa	Social Experiences of College Students and the Role of Institutions during the COVID-19 Pandemic	Sociology
	Colacino, McKenna	NYS Public High Schools and Graduation Rate Variation	Sociology
	Equinozzi, Kate	Kingdom of Opportunity: Citizen and Non-Citizen Labor in Jordan	International Relations
	Questions & Answers		

### Reexaminations

*Moderator: Gabriella D'Angelo, Associate Professor of Art and Architecture*

Time	Presenters	Abstract Title	Department/Program
12:10 - 1:10	Higgins, Aden	The Language of the Unheard: The Auburn Riots of 1929 and 1970	American Studies
	Lunken, Isabel	Villa D'Este: A Landscape Garden	Art and Architectural Studies
	Shea, Taylor	The Ladder of Humility: Feminine Sexuality as Bold Openness in C.S. Lewis' <i>That Hideous Strength</i>	Religious Studies
	Tattan, Tanner	Precarious Subjects: Guantánamo Bay and Legal Pluralism in Twenty-First Century Jurisprudence	American Studies
	Questions & Answers		

## Sanford Room

### On the Small Scale

*Moderator: Christine de Denus, Associate Professor of Chemistry*

Time	Presenters	Abstract Title	Department/Program
1:20 - 2:20	Coburn, Taylor	Microscopic Legos: A Dive into the Art of Organic Synthesis	Chemistry
	Golden, Johanna	Two Tunisiyas: Women's (Dis)empowerment through Microcredit	International Relations
	Marola, Abigail	Environmental and Geochemical Parameters Affecting Plankton Populations in Seneca Lake	Geoscience
	McGrath, Hannah	Microplastics in Dry Air	Geoscience
	Questions & Answers		

### A Better Mousetrap

*Moderator: Mary Kelly, Associate Professor of Education*

Time	Presenters	Abstract Title	Department/Program
2:30 - 3:30	Doherty, Zoe McElduff, Colleen	Giving Teachers Tools to Support the Mental Health of Students	Educational Studies (MAT)
	Guan, Cameron	Furin Inhibition Kinetics to Optimize HIV-1 Antiretroviral Therapy	Chemistry
	Kehoe, Meredith Knudson, Angelica Soulier, Laurel	Wondrous Worlds: Roleplaying and Its Impact on Youth	Educational Studies (MAT)
	Questions & Answers		



## Sanford Room

### To Make an Impact

*Moderator: Audrey Roberson, Associate Professor of Education*

Time	Presenters	Abstract Title	Department/Program
3:40 - 4:40	Amaral, Lucas	Parenting Styles and Adolescent E-Cigarette Use Moderated by Socioeconomic Status	Psychological Science
	Gold, Natalie Grieco, Michael Miller, Nicole	"Out of School Time" Programs: Seeking Stakeholder Perspectives	Educational Studies (MAT)
	Rose, Elana Shaw, Alison	An EPIC Exploration of a Youth Community Clubhouse	Educational Studies (MAT)
	Tate, Joseph	Nature-Based Carbon Offsetting	Environmental Studies
	Questions & Answers		

# Writers' Nook

## About the Game

*Moderator: Andie Huskie, Director of the Teacher Education Program*

Time	Presenters	Abstract Title	Department/Program
8:40 - 9:40	Barnosky, Alex	HWS Student Athletes and Geneva Residents	Sociology
	Heekin, Shayla	Unlocked: The World of Sports	Writing and Rhetoric
	LaPlante, Mia	College Athletics: Drug and Alcohol Rules and Their Relation to Team Culture and Success	Sociology
	Montecalvo, Jason	Fans' Influence on Athletes	Writing and Rhetoric
	Questions & Answers		

## Audience

*Moderator: Rob Carson, Associate Professor of English*

Time	Presenters	Abstract Title	Department/Program
9:50 - 10:50	Albreski, Ian	Laughing Matters: Francis Beaumont's <i>The Knight of the Burning Pestle</i>	English
	Lima, Kevin	Stand-Up Comedy with Kevin	Media and Society
	Lussier, Allison	The Audience Effect	Dance
	McGriff, Pete	Economics of Princely Art Commissions in the Renaissance	Art and Architectural Studies
	Questions & Answers		

# Writers' Nook

## Reexamining History

*Moderator: Scott MacPhail, Health Professions and Fellowship Advisor*

Time	Presenters	Abstract Title	Department/Program
11:00 - 12:00	Calderón, Samuel	Why Do I Speak English?	International Relations
	Palmisciano, Sarah	The Ethics of Holocaust Memorialization in Europe	Religious Studies
	Sorbello, Eleanor	How Ancient History Can Help Us Think about Abortion and Contraception	Classics
	Tesler, Benjamin	Not a Conflict: Sustainability Versus Historic Preservation	Environmental Studies
	Questions & Answers		

## The Importance of Identity

*Moderator: Keoka Grayson, Associate Professor of Economics*

Time	Presenters	Abstract Title	Department/Program
12:10 - 1:10	Gold, Natalie	Changing Gendered Pedagogies at School	Women's Studies
	Hill, Laura	<i>Field of Genes</i>	Writing and Rhetoric
	Konstantinou, Irini	Names We Carry: A Lyric Essay's Dissection of the Parts of Self	Writing and Rhetoric
	Schwappach, Logan	Who Do We Get to be Online? Regulation and the Digital Sphere	International Relations
	Questions & Answers		

# Writers' Nook

## Composing

*Moderator: Hannah Dickinson, Associate Professor of Writing and Rhetoric*

Time	Presenters	Abstract Title	Department/Program
1:20 - 2:20	Carr, Caitlin	<i>Normal Girl: An Investigation of Memory and Self</i>	Writing and Rhetoric
	Hoffman, Beatrice	West African Dance: A Feminist Approach to Taking up Space	Dance
	Koepp, William	F*cking Adverbials: An Exploration of the Impact of Grammar	Writing and Rhetoric
	Stier, Ella	Free Writing as a Practice of Improvisation	Writing and Rhetoric
	Questions & Answers		

## Global Lessons

*Moderator: Virgil Slade, Assistant Professor of History*

Time	Presenters	Abstract Title	Department/Program
2:30 - 3:30	Bott, Grace	The Effects of Natural Disasters on International Trade and Employment: An Example from Typhoon Haiyan in the Philippines	Economics
	Catlin, Ryan	The Vietnam War: Agent Orange and the Environment	Environmental Studies
	Rajkarnikar, Avi	Sports as an Engine of Development	International Relations
	Wei, Zhengrui	China's Waste Import Ban: Impacts Domestic and Global	Environmental Studies
	Questions & Answers		

## Writers' Nook

### In the Schools

*Moderator: Walter Bowyer, Professor of Chemistry*

Time	Presenters	Abstract Title	Department/Program
3:40 - 4:40	Bixby, Hannah	The Effectiveness of HWS Corps' Learning Objectives for Tutors	Sociology
	Burkhart, Christian	FLX Foodwaste: Geneva's Opportunity for Sustainable Success	Environmental Studies
	Griffis, Erin	Environmental Education: Strengthening the Human-Nature Connection and Conserving the Natural World	Environmental Studies
	Pratt, Katie	Multiple Intelligences in Education	Dance
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LAUGHING MATTERS: FRANCIS BEAUMONT'S  
*THE KNIGHT OF THE BURNING PESTLE*

Ian Albreski

My project is a critical essay on Francis Beaumont's *The Knight of the Burning Pestle*, in which I explore the ways in which the meta-formal elements of the play facilitate its comedy. I chose this topic because I have a personal interest in comedy and wanted to engage with an interesting piece of literature in a more serious and critical manner. Throughout the project, I immersed myself in a wide range of literature, from philosophical texts on comedy to specific criticisms of Beaumont's play, delving deeply into the subject matter. Through this project, I have gained a deeper understanding of the role that comedy plays in both literature and life and have developed a more nuanced appreciation of humor. While I hope that my work has contributed to the field of English Renaissance literary studies, this project has been a culmination of my studies thus far and has provided me with valuable experience in the research and writing process as I transition to graduate school and beyond.

# THE CAMPUS LAWN

Taline Almasian

The campus lawn has been and continues to be a staple of the collegiate landscape. In this age of greater awareness of our environmental impact, the campus lawn is one example of many that trades sustainable design for monocultured tradition. In this project, I analyze the changing role of the campus lawn from its emergence in early American colleges to its persistence within present-day college campuses. I highlight the core values of campus lawns through historical and modern lenses and discuss the evolution of attitude towards urban and suburban campus lawns.

This research is driven by a review of the secondary literature in order to establish a link between social perspectives on nature and the treatment and preservation of the campus lawn to better understand why the campus lawn is important to us and why it continues to persist. This, in turn, allows us to curate creative solutions to monoculture lawns in a way that does not sacrifice core values of college communities.

## PARENTING STYLES AND ADOLESCENT E-CIGARETTE USE MODERATED BY SOCIOECONOMIC STATUS

Lucas Amaral

While e-cigarettes have gained popularity among youth, it is still not clear how they affect health and influence disease, although recent studies suggest a multitude of negative effects. Understanding factors that affect the use of e-cigarettes can be useful in prevention.

Data from the substance use literature show that exposure to authoritative parenting, a parenting style where parents are nurturing, responsive, supportive, and set firm limits (APA 2017), has the potential to prevent abuse in select substances in adolescents. Does this same relationship exist among individuals of different socioeconomic brackets? It is expected that authoritative parenting will have similar effects on vaping practices.

The present study will be administered to students ages 13-19 and their parents. It aims to assess variability in e-cigarette consumption among adolescents experiencing various SES and parenting styles. It is important to look at socioeconomic status in conjunction with parenting styles to determine which populations are at the most risk for adverse consumptive behaviors.

## RISK ASSESSMENT OF LANDSLIDES IN THE CANANDAIGUA VALLEY

Ethan Ashe

Mass Movements, or landslides, have the potential to cost billions of dollars in damage and risk the lives of those affected. In the Finger Lakes region, we are not exempt from the hazards and damages landslides could cause to properties and roadways, but few studies have tackled the occurrence of such landslides in this region, except one of note having occurred in the Tully Valley, near Syracuse, 1993. Extensive research and reporting of these events in literature is sparse for the Finger Lakes region and is reserved for only a few areas.

With the aim to increase awareness of the occurrences of landslides around the Finger Lakes, this research project set out to assess what causes mass movements in the region, and where they are most likely to occur. To answer this question, two landslide locations were analyzed: the Western Slope of Canandaigua Lake North of Menteth Point, as well as the Tully Valley in Rattlesnake and Rainbow Creeks. The geomorphic history of these locations is included in this analysis. Further analysis of grain size, saturation characteristics, and soil strength were also done on the West Canandaigua site, to calculate factors of safety and to understand risk assessment. The landslides studied occurred on steeply graded slopes, and are a geomorphic response to deforestation, increasing density, and heavy episodes of rainfall.



## AMERICAN POLITICAL POLARIZATION AND THE ROLE OF THE CONSERVATIVE MEDIA

Needhi Bajaj

Since the 1970s, political polarization has begun increasing in America, and Democratic and Republican parties have been unable to compromise and enact change. The effects of political polarization are also shown by extreme beliefs and increasing division among the people. A reason for this increasing polarization is the role of conservative media in American society.

Through the examination of secondary sources regarding the effect of viewership and algorithms on the American public, I will examine the role of conservative cable news and social media in causing greater political polarization due to the biased manner news is presented. Furthermore, I will also conduct a content-based analysis on the amount of bias presented in conservative shows and social media. This study of polarization can help political scientists address the division in American society and help individuals examine how they are influenced by the media.

## SPACE, STORIES, AND STATE POWER IN JORDAN

Sam Barnard

Space is utilized and imagined in different ways by both the state and society, and the production of space often elicits contestation. Space cannot be viewed or used as a material production in isolation from the rest of society. Physical space has no 'reality' without the energy that is deployed within it.<sup>1</sup> Physical space becomes actualized by the social factors in and around it, or the energy deployed within it, such as its daily usage by citizens or restrictions on use and access. Understanding the production of public space can help to better understand what political, societal, and cultural factors shape inclusion and exclusion and work to legitimize state power.

This paper explores the production and reproduction of state power through a range of historical and contemporary public works projects in the city of Amman, Jordan. Exploring public projects over time highlights shifts in the regime's understanding of "the public" and its relationship to it. From the British mandatory period to early independence, the transformations brought by liberalization, and struggles to respond to a growing refugee population, the Jordanian regime has engaged in powerful forms of storytelling through its construction of public space. Citizen and non-citizen challenges to these stories reveal a great deal about the basis of the Jordanian regime's fragile legitimacy.

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<sup>1</sup>. Henri Lefebvre and Donald Nicholson-Smith, *The Production of Space* (Malden, MA: Blackwell, 2009) 7.

## HWS STUDENT ATHLETES AND GENEVA RESIDENTS

Alex Barnosky

This research project for my capstone course in Sociology focuses on gaining a better understanding of how HWS student-athletes and local Geneva residents interact on a weekly basis. Town-gown relationships can be fulfilling, fraught with issues, framed by expectations and misconceptions. Do student athletes have a preconceived idea of Geneva residents? Do Geneva residents have their ideas about student athletes? Along with that I want to gain an understanding of how people might act in certain situations; with the recent violence in downtown Geneva I believe it would be good to research how these coexisting groups of people feel and think about each other.

I will focus my study on 250 residents living closest to Hobart and William Smith and William Smith and Hobart teams. My goal with this research is to understand whether age, gender, and time spent in Geneva affect how Geneva residents feel and think about interacting with HWS student athletes. The methods I will use to gather my data are observation and survey. From this research, I hope to gain a good understanding of the factors impacting interactions between HWS student athletes and Geneva residents.

## FOURIER AND WAVELET ANALYSIS

Andrew Barsky

Fourier analysis, broadly, is the study of certain well-behaved functions in terms of the frequencies in the function. This is done using methods such as the Fourier series and the Fourier transform. However, there are some weaknesses to this approach - in particular, Fourier methods only tell us what frequencies exist within a function, not where they occur. Over the past several decades, the theory of Wavelets and Multiresolution Analysis has been developed, which gives us a different set of tools we can use to study functions without those same weaknesses. This talk will introduce aspects of both theories relevant to my project for Honors in Mathematics to a lay audience.

## PLEN: PREPARING YOU TO LEAD

Litzy Bautista and Fatou Diokhane

The Public Leadership Education Network (PLEN) is a national, non-partisan organization based in Washington D.C. focused on empowering, educating, and engaging women and marginalized gender groups in public policy to promote diverse, inclusive leadership in policy making.

On campus, our PLEN chapter focuses on promoting leadership and professional development, prioritizing and advocating for self-care, and aiding students in the navigation of their college journeys through discussion circles on studying abroad, choosing a major, self-care, among many other topics, via breakfast meetings and special events on campus, including some co-hosted with the PLEN Theme House. We also invite successful alums to campus to speak to students about their paths to becoming leaders in their fields. These alum speakers are from diverse professional backgrounds, yet they all speak about the significant impact PLEN has had on their lives and their professional paths. Additionally, every semester our PLEN chapter sends several students to Washington D.C. to participate in seminars hosted by the PLEN National team that give students insight into different sectors in the policy realm including Health, STEM, and Global policy. PLEN's motto is "Preparing You to Lead," and our chapter at HWS works hard to embody that mission.

## SECURITY: AN INSTITUTIONALIST PERSPECTIVE THROUGH THE LENS OF THE NEW DEAL ERA

Brendon Bennett

Crisis has been endemic to the global economy for the past century. The Great Depression is possibly the most devastating of these recessions but was met with the most robust policy response in what is known as the New Deal Era. Security defined the New Deal Era and was effectively utilized as a salient ideological tool. The concept of security attributed to the New Deal Era is often characterized as concerned with economic stability, but security goes farther: institutionalists build their economic framework around patterns of behavior (institutions), that are formed and reproduced through social bonds, and the strength of those social bonds, especially the social bonds relating to provisioning, are essential to the security of a society. The breakdown of key social bonds exacerbates and deepens crisis. Examining institutionalist participation in the New Deal and their theoretical work on the issues New Deal era policy attempted to address helps make the connection between the importance of social bonds and security as New Dealers used it clear.

The institutionalist approach grounds its analysis in social as well as economic realities, rather than approach economic problems through abstract, ungrounded models, and offers a new perspective through which to understand the success of New Deal policy in creating a robust, and relatively inclusive economy. The success of the New Deal demonstrates the effectiveness of this approach in creating prosperous and equitable economic outcomes.

## HISTORICAL PATTERNS OF DISINVESTMENT RESHAPING URBAN HEAT MAPS

Katrine Berg and Seneca Blakely-Armitage

“Redlining” describes the historical practice of disinvestment conducted by the Home Owners Loan Corporation in the 1930’s to assist mortgage lenders in identifying which areas of a city are considered “risky” or “hazardous” based on the proportion of black Americans, immigrants, and lower income households that reside there: cities create an urban heat island, due to an abundance of concrete and pavement in urban areas, which absorb heat and release it slowly, making them much hotter than rural areas. Parks and green spaces are utilized to mitigate heat; however, they are unevenly allocated throughout cities, and disproportionately found in wealthier, white neighborhoods. Moreover, lower income neighborhoods are built environments for numerous hardships such as higher levels of heat and air pollution, impacting not only resident’s physical and mental health but their sense of community as well.

Our study aims to conceptualize redlining’s lasting impacts on heat indexes in cities. We will analyze the urban heat map of the city of Charlottesville on four different neighborhood types: historically redlined low-income neighborhoods, historically non-redlined low-income neighborhoods, historically redlined now gentrified neighborhoods, and historically non-redlined now gentrified neighborhoods. We hypothesize that historical redlining practices impact existing contemporary residential segregation and therefore exacerbates higher heat levels along racial and socioeconomic lines.

## NEED FOR GREEN SPACES: A PSYCHOLOGICAL ANALYSIS THROUGH THE LENS OF COSTA RICA

Hrithik Biswas

Today, there is a need for better environmental stewardship. Part of my Winter J-Term study abroad program to Costa Rica, we looked at the ecological diversity and sustainability practices, and the many wonderful ways that “Pura Vida” culture – showing gratitude for blessings – plays a role in the unison mission to conserve the natural environment and focus on environmental sustainability.

In this presentation, I show how the focus on environmental conservation is shaped by Costa Ricans and how an interdisciplinary lens can be used to illuminate their social and environmental practices, discussing themes of change, urgency, and interconnectedness. Maintaining sustainability requires adaptation to the challenges of change. I do seek to use this study to better understand green spaces to promote well-being and encourage a holistic lifestyle in health and pro-environmental identity.



## THE EFFECTIVENESS OF HWS CORPS' LEARNING OBJECTIVES FOR TUTORS

Hannah Bixby

The Center for Community Engagement and Service Learning (CCESL) at Hobart and William Smith Colleges (HWS) has provided students with opportunities to tutor local youth for over thirty years. This tutoring program, HWS Corps, consists of two branches of tutoring: America Reads and The Boys & Girls Clubs of Geneva. With over 100 tutors and coordinators, this program serves a significant number of students in and around Geneva.

Between the Fall 2022 and Spring 2023 semesters, CCESL created a set of learning objectives for HWS Corps tutors. These objectives seek to guide tutors in their tutoring experience—the goal being that tutors will align more closely with these goals as their time in the program progresses. I am working to determine how well this goal is met: What changes can be seen in HWS Corps tutors' alignment with the program's learning objectives throughout the semester? What might these changes indicate about the program's effectiveness?

I will survey the HWS Corps' tutors toward the first half of the semester and again at the end. I predict that HWS Corps tutors will align more closely with the program's learning objectives by the end of the semester, indicating that the program provides tutors with effective experiences to achieve their objectives.

Anderson, M. (2020) *Racist housing practices from the 1930s linked to hotter neighborhoods today*, NPR. NPR. Available at: <https://www.npr.org/2020/01/14/795961381/racist-housing-practices-from-the-1930s-linked-to-hotter-neighborhoods-today>.

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Wilson, B. (2020) "Urban heat management and the legacy of Redlining," *Journal of the American Planning Association*, 86(4), pp. 443–457. Available at: <https://doi.org/10.1080/01944363.2020.1759127>.

# THE EFFECTS OF NATURAL DISASTERS ON INTERNATIONAL TRADE AND EMPLOYMENT: AN EXAMPLE FROM TYPHOON HAIYAN IN THE PHILIPPINES

Grace Bott

Every year in the Pacific Ocean, a typhoon season brings many intense storms throughout the year. Large, destructive storms can destroy infrastructure, trading ports, and transportation.<sup>1</sup> They can also cause disease, property loss, and unemployment. As a country heavily affected by the Pacific typhoon season, the Philippines is an example of the effect that destructive typhoons can have on international trade and employment. I will examine the damages caused by Typhoon Haiyan, also known as Super Typhoon Yolanda in the Philippines, because it is the deadliest storm to hit the Philippines in recent years.

I used monthly data from the World International Trade Statistics collected by the World Bank and a comprehensive damage report on Typhoon Haiyan published by the National Disaster Risk Reduction and Management Council to conduct my research. I expect to find that exports decreased in the aftermath of Typhoon Haiyan based on industries in the most affected regions, and employment also decreased according to the severity of the damage by region in the Philippines.<sup>2</sup>

This research is important because it provides an empirical assessment of the value of international trade in the Pacific region and the effects of severe typhoons on international trade and employment.

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<sup>1</sup> Christian Volpe Martincus and Juan Blyde, “Shaky Roads and Trembling Exports: Assessing the Trade Effects of Domestic Infrastructure Using a Natural Experiment,” *Journal of International Economics* 90, no. 1 (2013): pp. 148-161, <https://doi.org/10.1016/j.jinteco.2012.11.001>.

<sup>2</sup> Ayako Kondo, “The Effects of Supply Chain Disruptions Caused by the Great East Japan Earthquake on Workers,” *Japan and the World Economy* 47 (2018): pp. 40-50, <https://doi.org/10.1016/j.japwor.2018.03.007>.

## DISPOSITIONAL MINDFULNESS, ANXIETY, AND DEPRESSION IN PREDICTING COLLEGE STUDENTS' SLEEP DURING COVID-19

Katherine J. Brown and Isabelle M. Friedman

College students face many stressors related to academics and interpersonal relationships (e.g., Moeller & Seehus, 2019). These stressors are associated with increased mental health symptoms, such as depression and anxiety (Lipson et al., 2019), which can affect other aspects of functioning such as sleep (Peltz et al., 2017). Dispositional mindfulness (DM), or the level of present moment awareness that an individual displays in his/her daily life, is one factor that has been found to be associated with both fewer sleep difficulties (e.g., Murphy et al., 2012) and lower levels of psychological distress among college students (e.g., Kingery et al., 2021). Few studies have examined DM together with both psychological distress and sleep, particularly among college students.

We examine the relative importance of DM and symptoms of anxiety and depression for two aspects of sleep (i.e., subjective sleep quality, sleep disturbances) among a sample of 446 undergraduates. We expected that higher levels of DM and lower levels of anxiety and depression would be associated with better sleep quality and fewer sleep disturbances. Results indicated that DM and symptoms of anxiety and depression were all important predictors of the aspects of sleep examined within this study. However, DM and depression were shown to be relatively more important for sleep quality, whereas anxiety and depression (particularly anxiety) were stronger predictors of sleep disturbances. These findings have implications for enhancing college students' well-being and academic performance.

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Peltz, J. S., Rogge, R. D., Pugach, C. P., & Strang, K. (2017). Bidirectional associations between sleep and anxiety symptoms in emerging adults in a residential college setting. *Emerging Adulthood*, 5(3), 204-215. <https://doi.org/10.1177/2167696816674551>

## FLX FOODWASTE: GENEVA'S OPPORTUNITY FOR SUSTAINABLE SUCCESS

Christian Burkhart

Presently, over a third of the world's produced food tonnage is lost as food waste, and over 63 million tons of food enter the American waste stream. The massive loss of biomaterial pollutes the local environment and economy, causing millions nationally in waste management remediation processes. Locally, this is a pressing matter, as institutions that provide public services, like school systems, are exempt from the Food Donation and Food Scraps Recycling Law (2022) that requires the proper removal of food waste from the trash flow of large institutions.

Using analysis of secondary sources, I propose a solution to the Geneva City School District's food waste. Considering the economic, social and legal barriers to effective food waste management, GCSO can experience significant reductions in their food waste by the implementation of a system of food officers. Coupled with the collection and sale of organic waste to local farmers as a fertilizer/livestock feed, this removal of organic waste is an economically viable solution to the trash issues of the Finger Lakes region. Local community efforts of food waste recycling result in significant environmental and monetary benefits, while also promoting a sustainable, cyclical waste cycle. The creation of this relationship provides mutual economic incentive to food waste reduction, promoting sustainability within our local community.

## WHY DO I SPEAK ENGLISH?

Samuel Calderón

The legacy of colonization exists in almost every aspect of the contemporary world, and our methods of conceptualizing reality rely on the institutions of knowledge and social organization produced by those that harnessed colonization and control of the historical narrative. Recent initiatives to decolonize the field of International Relations focus on the process of “worlding,” whereby plural systems of knowledge achieve epistemological parity.

In this project, I engage this worlding process through an auto-ethnography of my BronxRican identity, detailing the social construction of knowledge and knowledge systems in my own life. Focusing on educational institutions and the explicit and hidden curricula that guide cultural conformity, I will interrogate modernization as a means of delegitimizing indigenous systems of knowledge. I will utilize my own struggle to identify my own nativity to urge the importance of the cultural restoration of alternative epistemologies and world conception.

## SOCIAL EXPERIENCES OF COLLEGE STUDENTS AND THE ROLE OF INSTITUTIONS DURING THE COVID-19 PANDEMIC

Alisa Canney

Covid-19 has brought major interruptions to American society, and high school and college students were at a unique age when their schools introduced new policies to create a safe environment during the 2020-21 school year. How were these students' social experiences impacted? Social relationships are essential to the college experience, and the institutions were critical in this process.

This study aims to measure high school and college students' social experiences during the pandemic and what role the institutions had in making that a negative or positive experience for students. I plan on interviewing 40 total students by class year, 20 first-years and 20 seniors, to see how their separate institutions impacted their social experiences during either their junior year of high school or sophomore year of college. I hope to understand better how high school students and college students had vastly different social experiences during a unique period of their lives.

*NORMAL GIRL: INVESTIGATION OF MEMORY AND SELF*

Caitlin Carr

My Honors Project is a memoir in which I describe in detail the events of the most recent seven years of my life. Employing a stream-of-consciousness style with vivid detail, I cite the power of my own journal writing in stimulating my memory and dive into stories involving the feeling of not belonging, the anguish of losing close friends, the misery of mental illness, the breaking of a family, the realization of a life's dream, the loss of loves and gaining of others, and finding joy in the world after losing it.

Work began on this project during my first semester in the First-Year Seminar "First Person Singular." Over three years, in several independent studies and on breaks, fueled by my own process of using writing to better understand myself and the world around me, I developed lengthy chapters. I captured lightning-bolt moments of inspiration and cultivated it through hours of intense thought and scrutiny.

This memoir helped me make sense of the events of my own life: I could view my life as if it were the plot driving a book, taking it out of my head, viewing it as an observer, and then placing it back inside with new insight.

## ON VERY, VERY LENGTHY MUSIC: AESTHETICS, ETHICS, AND ARCHIVAL PRAXIS

Cole Cassano

This presentation focuses on composers of avant-garde and minimalist classical music from throughout the twentieth century, and specifically explores instances of continuous musical compositions that last for multiple hours. The implications of such music are wide-ranging. Questions of form and format, of privilege and elitism, of various kinds of accessibility, and of archival praxis percolate when it comes to the logistics of simply listening to music meant to exist on the very threshold of listenability.

I discuss two currently active musical installations: the John-Cage-Orgel-Kunst-Projekt Halberstadt and Jem Finer's *Longplayer*. Both are projected to operate for centuries into the future and are paradigmatically ambitious musical explorations of expansive time. I also focus on the concert works of Morton Feldman, Dennis Johnson, and Jean Catoire, each existing on the fringe of canonical "minimalist" music while inhabiting different places on a spectrum of celebrity to obscurity: Feldman's music is fairly canonized if still rarely performed, Johnson's sole composition, *November*, has only in the past few years garnered a cult status, and Catoire's wealth of music has only in the past few months been first recorded and made available. Ultimately, my paper explores the conventions of production, both in physical and digital formats, when it comes to distributing and archiving these fascinating and frustrating works.



## THE VIETNAM WAR: AGENT ORANGE AND THE ENVIRONMENT

Ryan Catlin

The Vietnam War was defined by an evolution in military technology, including a particularly controversial application of the chemical defoliant 2,4-dichlorophenoxyacetic acid and 2,4,5-trichlorophenoxyacetic acid, known as Agent Orange. To this day, the governments of the United States and Vietnam cannot agree on the enduring impacts by Agent Orange on humans and the environment. My project focuses on the potential enduring impacts on the environment of this technology. Using case studies and scholarly articles, I hope to examine the detailed history of the development and use of Agent Orange, and its immediate and lasting environmental impacts. I hope to draw conclusions about whether there have been persistent environmental impacts.

In addition to my own passion for military history, this work is valuable to the world because this debate on impacts is contentious and in disarray. This work is important to the field of environmental studies because improving our understanding of the long-term impacts of technologies used during armed conflict can enable governments and military institutions to make better-informed choices on the use of these technologies.

# TRANSITING EXOPLANETS AND STARSPOTS: IDENTIFYING KEPLER K2 OBJECTS WITH STARSPOT CROSSING FEATURES

Misty Chien

Sunspots are observable manifestations of the Sun's magnetic field. Because the Sun is close to us compared to other stars in the Universe,<sup>1</sup> with a telescope we can see the dark sunspot features in much more detail than a star that is both fainter and much farther away. What if we want to learn about the magnetic field of stars other than the Sun? A lot less is known about these stars, and the tools with which to learn about them are more limited. A technique to circumvent this problem is using a transiting planet as a probe.<sup>2</sup> The Kepler satellite monitors the brightness of stars and detects orbiting planets through an apparent dip in the brightness when a planet crosses in front of the star.<sup>3</sup> Planets sometimes cross in front of starspots on the star; this has a unique effect on the dip in brightness. The effect is that the planet is now blocking less light, so there are bumps in the dip of the brightness. Therefore, analyzing in-transit variation of brightness of stars can help identify objects with starspot crossing features.

I have been working on code that aims to tell us whether an object from the Kepler K2 catalogue has starspot crossing features. Given an object, the program extracts its lightcurve data from the catalogue, normalizes individual transits, and computes a model based on its stellar parameters using Basic Transit Model cAlculationN in Python (batman).<sup>4</sup> The program then calculates the difference between the data and the model and performs the Kolmogorov-Smirnov test on the residuals to determine whether they are statistically from different distributions. Compiling a short list of objects with starspot crossing features allows for further study on these stars.

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<sup>1</sup> K.R. Lang. The Cambridge Encyclopedia of The Sun. Cambridge University Press, 2001

<sup>2</sup> C.A. Haswell. Transiting Exoplanets. Cambridge University Press, 2010.

<sup>3</sup> S. Tremaine J. Lissauer R. Dawson. "Advances in exoplanet science from Kepler". In: Nature 513 (2014), pp. 336–344. doi: <http://dx.doi.org/10.1002/andp.19053221004>

<sup>4</sup> L. Kreidberg. "batman: BASic Transit Model cAlculationN in Python". In: Publications of the Astronomical Society of the Pacific 127.957 (Nov. 2015), pp. 1161–1165. doi: 10.1086/683602. url: <https://doi.org/10.1086%2F683602>.

## REDACTIVE QUEER POETICS AND THE RESURRECTING OF QUEER GHOSTS

Julia Cilano

In my Critical Sexuality and Queer Studies capstone project, I seek to accomplish two goals: to analyze the inherent queerness of erasure poetry and to write a “queer essay.”

I pursued this first goal by researching how poetry defies standards of “normal” prose and how queer theory allows for fluidity and expression. Additionally, I underlined the queerness of reclaiming language, a key facet of erasure poetry, by making erasure poetry of documents written about Herculine Barbin, an intersex French woman who lived in the mid-19<sup>th</sup> century, as inspired by the groundbreaking erasure work *Zong!* by M. NourbeSe Philip.

I pursued this second goal by consciously writing a text that exists with the reader, subverts the traditions of academic writing, and is empathetic to the reader. I chose a structure, vocabulary, and emotional register that best suits a text informed by queer theory.

My presentation will further explore these ideas by discussing the origin and development of my project, my reflections on this work, and by leading a discussion in a queer way. I will share my erasure poetry and walk through its creation while embodying queer knowledge production with my fellow panelists and listeners.

## MICROSCOPIC LEGOS: A DIVE INTO THE ART OF ORGANIC SYNTHESIS

Taylor Coburn

Organic chemistry is often viewed as a complex and intimidating field, yet performing organic synthesis is no different than constructing with Legos or producing a work of art. Through years of organic chemistry research, I have been able to develop modular synthetic methods for preparing various diarylfuranones by using 3-aryltetronic acids as key building blocks, similar to how one would use the classic 4 x 2 brick. My straightforward five-step synthesis has allowed me to produce different diarylfuranones, including analogs that demonstrated potent anticancer activity.

In this talk, I hope to highlight how my research in synthetic organic chemistry has allowed me to express my creative instincts by taking small, simple materials and piecing them together in a way that creates elegant yet powerful products.

## NYS PUBLIC HIGH SCHOOLS AND GRADUATION RATE VARIATION

McKenna Colacino

I hypothesize a link between the location of public high schools and their graduation rates, with consideration for other demographic data such as socioeconomic status and race. Randomly selecting 40 urban public high schools and 40 rural public high schools, I will examine socioeconomic status of the student body as a whole, and compare graduation rates. This indirect analysis will assess whether location, socioeconomic status, and racial composition of public high schools make a difference in their graduation rates (in 4 years) or if they are linked.

Urban and rural schools both receive poor publicity when it comes to low graduation rates, but I would argue that low graduation rates may be a result of forces that work against student success.

National Center for Education Statistics (2023, March, 8). National Center for Education Statistics NCES: Institute of Education Sciences IES. <https://nces.ed.gov>

New York State Education Department. New York State Education at a Glance. <https://data.nysed.gov>

## THE DAMOCLEAN THREAT OF CLIMATE CATASTROPHE: THE IMPACTS OF CLIMATE CAFES ON ECO-ANXIETY

Hudson M. Cunningham-Baker

While climate change's effects are commonly thought of as shifts within natural biomes, weather patterns, and ecosystems, another impact remains largely undiscussed: climate anxiety is a burgeoning phenomena that is caused by considering the slew of harms caused by climate change—particularly how humanity and the natural environment may become disrupted for the worse<sup>1</sup>. Climate anxiety is affecting individuals worldwide and has been historically understudied.

For my Honors Project in Psychology, I used a Climate variation of “Death-Cafes,” which is a moderated group discussion model designed to help those with immense death anxiety<sup>2</sup>. These climate cafes consisted of hour-long moderated conversations that asked participants about their outlook surrounding climate change, environmentalism and other related matters. Participants attended two climate cafes, one week apart from one another. Results from questionnaires were analyzed for distinctions between these meetings. These results will be described during the presentation.

As the observable effects of climate change become more readily apparent and climate-anxiety becomes more commonplace, it is integral to study potential remedies to this psychological distress. This study proposes that climate anxiety's underlying cause is existential anxiety and aims to assess whether existential anxiety remedies benefit those with subclinical rates of climate-derived anxiety.

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<sup>1</sup> Wullenkord, M., Tröger, J., Hamann, K. R. S., Loy, L., & Reese, G. (2021, October). *[PDF] anxiety and climate change: A validation of the Climate Anxiety Scale in a German-speaking quota sample and an investigation of psychological correlates: Semantic scholar*. Climatic Change. Retrieved March 6, 2023, from <https://www.semanticscholar.org/paper/Anxiety-and-climate-change%3A-a-validation-of-the-in-Wullenkord-Tr%C3%B6ger/c2b4d0705e8c2a9ffdcfc467bde581ccb48d5d20>

<sup>2</sup> Laranjeira, C., Dixe, M. A., Querido, A., & Stritch, J. M. (2022, August 2). *Death cafés as a strategy to foster compassionate communities: Contributions for death and grief literacy*. *Frontiers in psychology*. Retrieved March 6, 2023, from <https://pubmed.ncbi.nlm.nih.gov/35983204/>

## GIVING TEACHERS TOOLS TO SUPPORT THE MENTAL HEALTH OF STUDENTS

Zoe Doherty and Colleen McElduff

What is the role of a teacher? Some might believe that a teacher's job consists strictly of teaching a curriculum and making sure that students complete all academic requirements needed to move them on to the next grade. In reality, one of a teacher's most important jobs is providing emotional support to their students: children often look to a teacher as a source of comfort or advice when they are facing challenges. Today, the mental health crisis is impossible to ignore, and children are not exempt from experiencing anxiety, depression, substance abuse, or suicidal thoughts. Due to the large amount of time children spend in schools, teachers must have the tools to effectively provide appropriate supports for their students.

Throughout the semester, we have worked with Finger Lakes Community Schools to see how local towns are managing the mental health of their students. One school recently devoted a professional development day for staff to attend a Youth Mental Health First Aid training. Youth Mental Health First Aid is designed to teach adults about common mental health challenges for young people, while providing a five-step plan for how to help intervene in both crisis and non-crisis situations. Our project analyzes how common language is utilized to help different agencies come together to support a community in need.

## SHORT-TERM RENTALS IN THE FINGER LAKES REGION: IMPACTS ON COMMUNITY AND TOURISM

Molly Dutton

In partnership with the Finger Lakes Visitors Connection, I am examining impacts of short-term rentals impacting communities and tourism in the Finger Lakes region. Using a mixed-methods approach, I analyze databases in conjunction with a literature review to produce a comprehensive assessment of the state of short-term rental propagation in the Finger Lakes tourism region. Comparative study reveals how other regions have been impacted by the influx of short-term rentals and examine strategies and zoning laws that municipal leaders can consider.

This research project was prompted by an expectation that short-term rentals are impacting average daily rates of hotel occupancy in the Finger Lakes region. As previous research has shown in other regions, the unregulated propagation of short-term rentals constricts community building and in specific circumstances, contributes to the housing crisis. I expect to find that short-term rentals have increased at such a rate that neighborhoods are impacted.



# THE RELATIONSHIP BETWEEN GREENLAND ATMOSPHERIC RIVERS AND TRANSITIONS IN THE PHASE OF THE NORTH ATLANTIC OSCILLATION

Alexandra Dwyer

There is limited work investigating the relationship between Greenland Atmospheric Rivers (ARs) and the North Atlantic Oscillation (NAO), yet synoptic scale systems, such as extratropical cyclones associated with ARs are shown to influence, and change, the NAO. This study identifies distinctive NAO phase transitions that occur within 7-days to examine their potential connection to Greenland ARs. As part of the NEPARS Research Experience for undergraduates, I, along with a fellow research assistant, created a 2001-2020 climatology of Greenland ARs using NASA-MERRA-2 6-hourly IVT maps and paired temporally with daily NAO index values. Twelve NAO transition types were identified: -1 to 1, 1 to -1, 0 to 2, 2 to 0, 0 to -2, -2 to 0 (2-integer transitions), -1 to 0, 0 to -1, 1 to 0, 0 to 1, -.5 to .5, and .5 to -.5 (1-integer transitions), and the presence of ARs during transitions was noted. Composite mean SLP and SLP anomaly maps were also created for the beginning, middle, and end of each of the six 2-integer transition type cases as well as for case studies of particular transition events.

Both 1 and 2-integer NAO transitions occurred relatively infrequently, yet ARs were frequently associated with them. A total of 32 (499) 2-integer (1-integer) transition events were identified, 84% (64%) of which contained an AR. There were 7 of 12 transition types with higher frequency of related AR hours than the climatological (2001-2020) frequency of AR hours, and a case study is presented to demonstrate the atmospheric link between a prominent AR and an NAO transition of a -1 to 1 magnitude during the period of 10-14 July 2008.

I received advice and mentoring from Professors Neil Laird and Nick Metz and earned the Goldwater Scholarship for my articulation of those results.

## THE GLASS RUNWAY: GENDER INEQUALITY IN THE FASHION INDUSTRY

Isabella Eliot

In this research project, I ask what role does gender play in impacting the economic inequalities that are present in the fashion industry and what are the implications of these inequalities? McKinsey & Co. reports that, “The Glass Runway found four primary sources of gender inequality: lacking awareness and commitment, ambiguous success criteria, the disparity in sponsorship and mentorship, and constraints of work-life balance” (Brown, 2018). The implications of these issues are explored further in this presentation.

While the fashion industry is not the only creative or artistic industry to be ignored mainly in economics, it is unique in the sense that despite being female dominated, both in terms of public perception, product consumption, and overall percentage of workers, there is a significant lack of female representation in the community of designers and the high-level executives of famous brands. There has been some academic economic research done on the gendered inequalities that models, factory workers, and intermediate retail workers face working in this industry; there is not enough research about the inequalities that people on the other side of the curtain are exposed to.

Pamela Brown, Stacey Haas, Sophie Marchessou, and Cyrielle Villepelet. “The Glass Runway and Gender Diversity in Fashion | McKinsey.” McKinsey, October 4, 2018

KINGDOM OF OPPORTUNITY:  
CITIZEN AND NON-CITIZEN LABOR IN JORDAN

Kate Equinozzi

The process of delineating the rights of different categories of workers is central to the production and reproduction of state power. This is particularly evident in the regulation of citizen vs. non-citizen labor. The Hashemite Kingdom of Jordan is a fruitful site in which to explore this process, given its role as a refugee host state and magnet for labor migration. Refugees and labor migrants combined make up one third of the Jordanian labor force, a share that has consistently increased since the 1970s. During the same period, major changes in the regulatory framework have distributed rights and responsibilities to different categories of workers, accompanied by a discourse of “state hospitality.”

This paper uses comparative historical analysis and process tracing to explore Jordan’s evolving regulatory framework and its consequences for Jordanian and non-Jordanian workers. Comparing the rights and restrictions facing foreign workers in different sectors can show how a resource-poor and labor-abundant country uses protectionist policies to navigate the challenge of promoting citizen employment while meeting unmet needs and perpetuating the Kingdom’s image as a welcoming host.

# INCORPORATION OF ENVIRONMENTAL EDUCATION IN NEW YORK PUBLIC SCHOOL CURRICULUM

Korina Farwell

Environmental Education (EE), the intersection between education and environmental science, aims to create citizens that are knowledgeable, motivated, and active in environmental issues within society. Although the term EE was coined by William Stapp in 1969, ideas of educating about environmental issues date far back in society. Today, EE can be implemented in the public-school curriculum as young as preschool age. However, English and math lessons are prioritized over science, and even when science is taught, it doesn't prioritize EE. Preservice teacher training programs such as *Project Learning Tree* can increase likelihood that teachers successfully incorporate EE into their science lessons.

The Next Generation Science Standards (NGSS) are a set of national standards for science education covering a wide range of science subjects. Hufnagel et al. examined the frequency and context of the occurrence of the term "environment" in these standards and found that the use of the word environment and other environmental related terms was ambiguous. Using Hufnagel methods, I examined the frequency and placement of EE concepts in the New York State Science Standards. My analysis will highlight the gaps within the incorporation of EE in New York State elementary school science education and show where improvements can be made.

Hufnagel, E., Kelly, G. J., & Henderson, J. A. (2018). How the environment is positioned in the *Next Generation Science Standards*: a critical discourse analysis. *Environmental Education Research*, 24(5), 731-753.  
<https://doi.org/10.1080/13504622.2017.1334876>

## THE ROLE OF CASE MANAGEMENT WITHIN MEDICATION ASSISTED TREATMENT

Sofia Cseri Ferguson

The opioid epidemic in the United States has resulted in high mortality rates, great economic costs, and challenges in treating those at risk for Opioid Use Disorder (OUD). Medication Assisted Treatment (MAT), though controversial, has been proven to be effective for treating OUD. Methadone, buprenorphine, and naltrexone are medications commonly used to reduce withdrawal symptoms and prevent relapse. Case Management (CM) is an intervention designed to provide ongoing supportive care to clients and facilitate effective coordination and continuity of resources. Little is known regarding the use of MAT and CM in conjunction.

This project aims to examine the role of CM alongside MAT for the treatment of OUD. I am especially interested in examining whether CM combined with MAT is more effective at treating OUD compared with MAT alone. My project will consist of a quasi-experimental design, in which participants with OUD diagnoses are recruited from substance use treatment facilities and randomly assigned to either the CM+MAT condition or the MAT condition.

While MAT has shown efficacy in treating OUD, I believe that the addition of CM will result in an overall better quality-of-life for those in recovery. Combining these approaches may prove to be crucial for patients with OUD, targeting both the addiction and withdrawal symptoms with MAT, and targeting the social, emotional, and environmental barriers with CM.

## SUBGROUP DISPARITIES IN REFERENCE TO TOBACCO AND VAPING PRODUCTS

Denelis Ferreira

My study's primary goal is to analyze the connection between different demographic characteristics or subgroups in reference to the usage of frequency of tobacco and vaping products. I will use data from the Tobacco Action Coalition of the Finger Lakes from the American Lung Association from their 2020 and 2022 research of Ontario County. Data will be gathered through three different randomized mechanisms, including landline telephone numbers, cellular phone numbers, and online surveys, from December 12th, 2022, to December 30th, 2022 with a sample size of 400 (the Ontario County population is 113,000 with those eighteen or older being 91,000). The demographics highlighted for this study include gender, race, sexual orientation, age, socioeconomic status, and family structure, which are observed through the dependent variables of usage and perception.

I hope to uncover whether the current patterns and trends in tobacco and vaping products usage and perception are generalized throughout Ontario County; the study's goal was influenced by various studies that summarized how tobacco and vaping product usage was more heavily used and prominent for specific groups of people in other research populations.

## “OUT OF SCHOOL TIME” PROGRAMS: SEEKING STAKEHOLDER PERSPECTIVES

Natalie Gold, Michael Grieco Jr., and Nicole Miller

Out of School Time (OST) programs are often used to supplement students’ in-school learning. The goal of OST programs is to provide supervised offerings for youth, such as extra academic activities, sports, theater productions, and many more. These various activities create opportunities for students to activate different parts of their brains and bodies as well as engage with their peers in new ways.

For our Master of Arts in Teaching (MAT) research-based project, we each are engaging in an OST program within the local community. These programs include an after-school theater club, an elementary before-and after-school program, and a community arts center. Each program comes with its own stakeholders. Through our work and interviews with these community partnerships, we hope to better understand the viewpoints of these stakeholders. Through a cross-case examination of three research sites, we will explore the impact of OST programs on their participants and broader communities. Our hope is that people will understand more about OST program benefits and to increase awareness of them in their own communities.

## CHANGING GENDERED PEDAGOGIES AT SCHOOL

Natalie Gold

Teachers often hold implicit gender-based biases towards students, which are further compounded when intersecting with race, religion, or sexual orientation (Ablin, 2022; Vaid-Menon and Lukashevsky, 2020). Teachers who favor one gender or promote the idea that certain subjects are better suited to different genders are not creating a safe space for any students, and specifically transgender and gender-nonconforming students. Therefore, it is vital to eliminate gender biases in the classroom to ensure that all students feel respected and valued.

To address these biases, I have used Venditto's work to create a set of guidelines to help teachers self-evaluate and to provide training strategies for school districts to create a gender-inclusive environment (Venditto, 2020). Educators could utilize these various self-evaluation worksheets, such as those focusing on classroom layout and design, themes of books in the classroom or school library, personal perception of gender stereotypes, language used to address students, grouping of students, and criteria for selecting students to participate in discussions. By considering these individual surveys, a school district can arrange monthly in-service meetings to review the results and provide teachers with additional guidance on fostering inclusivity for all students, irrespective of their gender or other intersectional characteristics (Venditto, 2020).

Ablin, Jason. *The Gender Equation in Schools How to Create Equity and Fairness for All Students*. Routledge, 2022.

Vaid-Menon, Alok, and Ashley Lukashevsky. *Beyond the Gender Binary*. Penguin Workshop, 2020.

Venditto, Dorothy Chiffriller. *Gender Equity in Elementary Schools: A Road Map for Learning and Positive Change*. Rowman & Littlefield, an Imprint of The Rowman & Littlefield Publishing Group, Inc., 2020.



## TWO TUNISIAS: WOMEN'S (DIS)EMPOWERMENT THROUGH MICROCREDIT

Johanna Golden

Tunisian women outpace men in higher education enrollment and graduation, yet still experience greater rates of unemployment. Moreover, there are persistent and substantial wealth gaps between Tunisians along the more urban, densely populated coastline and those in the country's interior. Microcredit has grown as a popular form of NGO-led loaning presumed to improve the livelihood opportunities for two groups of disempowered lenders: women and the poor. The literature on microlending, however, suggests that its results can be ambiguous.

This project uses comparative historical analysis and process tracing methods to explore the impact on rural versus urban women in Tunisia over time. Tunisia began employing microcredit in the 1990s and many microfinance institutions (MFI) remain today. Microcredit withstood the political and economic turmoil of the 2011 revolution and its aftermath, meaning that a wealth of data is available through which to assess the impact of microcredit through synchronic and diachronic comparison. Doing so shows that women, as a whole, have become worse off since 2011 but that some women have been well-positioned to benefit from microcredit, while others have encountered unintended harm through its expansion. Microcredit as a national strategy is therefore likely to deepen existing inequalities among women.

## ENVIRONMENTAL EDUCATION: STRENGTHENING THE HUMAN-NATURE CONNECTION AND CONSERVING THE NATURAL WORLD

Erin Griffis

Children often lack the proper tools and opportunities to connect with nature in school settings. Due to anthropocentric approaches that focus on cultivating higher levels of academic performance among students, there is a profound disconnect between children and the environment. This separateness from nature leads to the nature-deficit disorder, which reinforces a deficit of care for the environment. As our Earth continuously suffers from various forms of environmental degradation, our youth population must be informed and aware of their own affiliation to nature. It is essential that primary schools are offered clear guidance on how to teach students various ways to engage and explore the natural surroundings in order to foster much-needed environmentally conscious attitudes.

Research in fields such as conservation psychology and the human-nature connection are vital to understanding the positive environmental implications of strengthening students' connections to the outdoors. My study draws from previously conducted case studies that took place in various school settings, such as forest schools and environmental education programs. This broad examination of research identifies positive shifts in environmental attitudes and behavior through the implementation of outdoor learning approaches. Among effective activities and strategies that enable children to access their symbiotic relationship with nature, sensory engagement activities and unstructured play provide the most beneficial results.

## FURIN INHIBITION KINETICS TO OPTIMIZE HIV-1 ANTIRETROVIRAL THERAPY

Cameron Guan

Despite advances in the development of antiretroviral drugs for treating HIV-1, there is still no cure for the disease. One of the key targets of antiretroviral therapy is the HIV-1 envelope glycoprotein gp160, which is synthesized as a precursor molecule that is then cleaved by the protease furin to generate the mature glycoproteins gp120 and gp41. Inhibition of gp160 cleavage has been proposed as a potential therapeutic strategy for treating HIV-1, as cleavage is essential for the formation of infectious virions; it is required for the fusion of the viral and host cell membranes during viral entry. Several classes of compounds have been shown to inhibit gp160 cleavage, including peptidomimetic compounds, small molecule inhibitors, and monoclonal antibodies.

Michaelis-Menten kinetics can be applied to measure furin activity in the presence and absence of inhibitors. With an inhibitor screening assay, inhibitors showing a significant decrease in enzyme activity can be further validated in a cellular context. Determining the Michaelis-Menten kinetics of gp160 cleavage inhibitors for furin can provide valuable information for optimizing the design, dosing, and efficacy of these inhibitors for treating HIV-1 infection. My project is creating a grant proposal to carry out such research.

## EXPANDING THE POSSIBILITIES FOR ANTICANCER DRUGS

Rielly Harrison and Haley Sax

Cancer is a complicated disease, and various combinations of treatments and medications are used to treat different types of cancer. One type of anticancer drug, called a histone deacetylase (HDAC) inhibitor, interacts with DNA, and has been used effectively against many types of cancer, from blood cancers to solid tumors. HDAC inhibitors work by preventing tumor suppressor genes from being silenced. Tumor suppressor genes are those that normally work to regulate cell division; when these genes are silenced, cells can uncontrollably divide, forming tumors. HDAC inhibitors can prevent the silencing of these genes so that cell division is regulated, and decrease the likelihood of tumor formation.

The Miller lab has developed a method to streamline the synthesis of HDAC inhibitors without sacrificing the effectiveness of the drugs produced. A molecule was synthesized that contains a latent thioester that can link two peptide fragments together resulting in the cyclization of the HDAC inhibitor. Analogs of HDAC inhibitors can be synthesized easily and their anticancer properties can be tested. The linker molecule is known to work under aqueous conditions, so aqueous-compatible amino acids can be incorporated in the molecule. We have been testing its applications in organic conditions, which would expand the range of amino acids that can be incorporated in HDAC inhibitors, with the potential to increase potency of the drugs.

## UNLOCKED: THE WORLD OF SPORTS

Shayla Heekin

Sports consume many individuals every day, yet some sports are more well-known than others. “World of Sports: Unlocked” is a magazine I created that contains twelve stories on professional athletes known across the world. There is a letter to the editor, a well, and a section where my table of contents is, to highlight successes that our sports icons have faced to engage and educate the viewer on the most current news as well as past achievements. This magazine is a base to discuss opinions, facts, and commentary about athletic success from the different sports, including tennis, lacrosse, football, basketball, and soccer.

By sharing this piece, I hope to draw in an audience who are looking to get involved with a particular sport. My magazine can help fans feel more educated on the careers of some of the greats.

THE LANGUAGE OF THE UNHEARD:  
THE AUBURN RIOTS OF 1929 AND 1970

Aden Higgins

The Auburn Correctional Facility, a mere twenty-eight miles away from Hobart and William Smith Colleges, was the site of violent riots in 1929 and 1970 protesting poor living conditions and racial injustices. Historically, the Auburn Correctional Facility is notable due to its contribution of the “Auburn System,” a nineteenth-century revision of Quaker prison reform.

My interest in the Auburn riots arose through growing up in Upstate New York: the Auburn Correctional Facility stands along a chain of forty-four state-funded prisons in New York. The most notable and deadly riot in United States history occurred in Attica, New York, and both the Auburn and Attica Prison riots were critically linked to each other, occurring less than a year apart, yet there is little work on the Auburn riots.

My project implements a combined study design analyzing primary documents including newspapers, photographs, census records, and public documents for their content and rhetoric, as well as data visualization techniques to better understand the social origins of the prison riots. Working with Martin Luther King Jr.’s notion that riots are the language of the unheard, I hope to answer two questions: “What do these prison riots tell us about the Auburn System?” and “What do prison riots tell us about American life?”

## *FIELD OF GENES*

Laura Hill

Mental health and mental illness are prevalent matters that people choose to ignore, letting the stigmas that surround this illness speak louder than the cries for help. This stigma closes doors, causing many to suffer in silence.

*Field of Genes* is a sports memoir written about my personal athletic experience and how my grandfather, dad, and uncle all shaped my career with their own experiences as well. The writing process behind this memoir required me to put myself out there and to be vulnerable, allowing each reader to experience the highs of winning championships and the lows of losing your entire career; it also allowed me to focus on who we are as people outside of what is presented to the naked eye.

Through sharing this piece, I hope to raise awareness and erase the stigma around mental health and mental illness. By doing this, I would show other student-athletes that it is okay to not be okay and that it is okay to speak out about their struggles.

WEST AFRICAN DANCE: A FEMINIST APPROACH TO TAKING UP SPACE  
Beatrice Hoffman

This research project focuses on how West African Dance offers a space for women to dance in large and expansive kinespheres, a movement style often frowned upon for women in Western cultures. Interest in this project was sparked on my first day of studying Kuku, a dance traditionally performed by women when men return from a fishing trip. We were told to take up “as much space as possible,” a prompt rarely presented to women in Western culture, who are conditioned to take up as little space as possible. For example, women are often forced to narrow themselves on a subway when sitting next to a man who manspreads or encouraged to become smaller and thinner to be more attractive. Being told that we must make ourselves as large as possible was a liberating experience.

As a Dance Performance & Choreography major, I have studied Jamaican Dance, which has roots in West African styles as well as the West African dances of Kuku, Sofa, Boah, and Tiriba. Each dance taught me how to expand my kinesphere even further than I had thought possible and pushed me to take up more space than even some of my male classmates. To further investigate this significant embodied experience, I have examined feminist criticism of spaces and other forms of West African dance to discover how both experiences, one literary and one physical, offer women a place of growth and expansion.



WHITE WOMEN'S WORRY:  
AMERICAN WOMEN AND TRUE CRIME PODCASTS

Paige Humphrey

Why has true crime become a sensation in contemporary America? Research suggests that women in particular watch, listen to, and read these stories more than their male counterparts do; why are women so interested in the topic? How does gender interact with racial identity in true crime?

To answer these questions, my research will examine *My Favorite Murder*, a popular true crime podcast hosted by two white women, analyzing the language and themes of the show. I will also synthesize listener responses from the website *Reddit* to characterize general reactions to the episodes. My framework will be based on a study conducted by psychologists Amanda M. Vicary and R. Chris Fraley that explains women's attraction to true crime literature,<sup>1</sup> seeking to discover whether their conclusions hold true in this new and popular medium.

My research will shed light on the impacts of race and gender on the popularity of true crime stories, speaking to larger issues of whose stories get told and why.

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<sup>1</sup> Amanda M. Vicary and R. Chris Fraley. "Captured by true crime: Why are women drawn to tales of rape, murder, and serial killers?" (*Social Psychological and Personality Science* 1, no. 1, 2010): 81-86.

## THE IMPACTS OF INJURY ON FEMALE STUDENT-ATHLETES DEPRESSION LEVELS

Lauren Jackson

Females experience higher rates of depression compared to males. The risk for depressive symptoms among females can be exacerbated by additional stressors that student-athletes face. It is likely that the levels of depressive symptoms and anxiety can be worsened when student-athletes face a season/career ending injury. Factors such as social support, sport played (individual vs team), level of competition, and relative timeline until end of career can act as moderators on psychological symptoms.

In my study, I aim to understand this impact by performing a longitudinal study to examine the levels of depression and other mental illnesses for female student-athletes with season/career ending injuries. Athletic trainers at NCAA institutions will recruit student-athletes to fill out a baseline self-report mental health questionnaire during pre-season along with demographic information. Athletic training staffs will recommend student-athletes to the study within 72 hours of a season/career ending injury diagnosis. Participants will be evaluated by self-report and interviews administered to analyze psychological symptoms/mental health disorders. Athletic training staff will provide a recovery report at each visit post-injury throughout this multi-year study.

The goal of this work is to better understand how injury can impact psychological symptoms and what psychological concepts such as social support, identity, and healthy coping strategies can buffer the effects of this injury on developing a psychological disorder. Understanding the impact of injury on mental health of female student-athletes, including moderators and factors, has the potential to inform treatment protocols for NCAA athletic programs to promote healthy coping.

## THE POLARIZATION OF ABORTION, GUN CONTROL, AND IMMIGRATION

Kelsey Johnston

Over the past twenty years, the political arena in the United States has become increasingly polarized. The cultural divide between states is emphasized in topics regarding abortion, gun control, and immigration. This research aims to understand how impactful state demographics are in the political polarization across the 50 states. I am in the process of creating a database compiled with information regarding state demographics, including data describing policy regarding abortion, gun control, and immigration. I intend to understand how impactful state demographics are regarding the political stances of abortion, gun control, and immigration.

Further understanding how state demographics influence polarization and policy on a larger scale can contribute to the efforts to bridge the divide between our political parties. I hope to use this research in the future to better communicate with politicians on both sides of the political spectrum, when I pursue a career on Capitol Hill.

## FAILURE: THE ENTREPRENEUR'S GIFT TO THE ECONOMY

Sreyan Kanungo

Nine out of 10 startups fail. But is that truly a bad thing? When evaluating the contribution of startups in the economic status quo, it is common to look at the successes and its impact on job creation, technological innovation, and cultural evolution. While it is important to credit the Airbnbs and Ubers around the world for moving us forward, the countless failed startups that remain nameless and forgotten which lay the foundation for innovative breakthroughs in de-risking methodologies and efficient managerial philosophy.

Drawing from my experience in founding UTime, learning and research from entrepreneurial academia, and networking with dozens of entrepreneurs who have both failed and succeeded, I seek to highlight some of the key operational methodologies and managerial philosophies to be learned from startup culture, why and how the economy is better off because of startup culture.

## WONDROUS WORLDS: ROLEPLAYING AND ITS IMPACT ON YOUTH

Meredith Kehoe, Angelica Knudson, and Laurel Soulier

Roleplaying games are collaborative activities where players work together to tell a story through a system of storytelling mechanics. Through roleplaying students can create, explore, and interact with worlds they make themselves. Furthermore, roleplaying can be used in and out of the classroom to develop childrens' literacy skills. Through the Geneva Roleplaying Collective at the Geneva Boys and Girls Club, we are participating in roleplaying activities and will be gradually taking on more responsibility running games for students to meet various educational goals.

We will be interviewing elementary-aged participants in the Roleplaying Collective. Using qualitative analysis, we will examine our interview data for themes that are relevant to our areas of interest. Our preliminary findings will be analyzed for the frequency of these themes and this analysis will be used to propose a long-term project that could benefit the Roleplaying Collective. As future educators ourselves, our main motivation for this project is to learn more about how to support all students and to create an educational philosophy that is inclusive, creative, and student centered. While we all have a deeper focus in a specific area, we are all invested in the power of roleplaying games in out of school educational environments and their larger communities to build community and provide students with a space for motivation, socioemotional learning, and self expression.

## IMPACTS OF ADOLESCENT SLEEP QUALITY

Owen Killy

The majority of middle school and high school students do not get adequate sleep on weeknights, and a staggering number of middle and high school students struggle with mental health (CDC, 2020). Likewise, the number of adolescents who experience symptoms of anxiety and depression is high. Both of these factors impact the ability of an adolescent to focus in an academic setting and negatively impact the other. Although it is evident in prior research that there is a connection between sleep quality and quantity, academic achievement, and involvement, and internalizing mental health symptoms of anxiety and depression in adolescents, it is unclear which factors mediate the others. (Ming et al., 2011; Titova et al., 2014)

In my research, I proposed that poor sleep often makes any mental health issues more substantial, which then in turn lowers sleep quality and quantity. I proposed that this cycle then eventually breaks off into other aspects of life, whether it be academic, athletic, or social. My proposed study filled in gaps in previous research that do not allow for the information to be nationally applicable.

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# A BURNING WORLD: THE PAST, PRESENT, AND FUTURE OF THE ENVIRONMENTAL MOVEMENT

William Koepf

After years of organizing efforts, the environmental movement has made marginal gains toward diffusing the climate crisis but has fallen short of substantial policy changes needed to save the world we are burning. Modern environmental tactics in America are mostly peaceful, non-destructive, and, at most, disruptive. What other tactics are available to the environmental movement? What tactics have been explored before and abandoned? Why? Might the past offer a solution in the present to unlock a sustainable future?

This project looks specifically at a tactic utilized throughout the 1990s in America: ecological sabotage, otherwise known as ecotage. As a tactic, ecotage seeks to avoid harm to life but to damage or destroy infrastructure associated with injury to the environment. I examine the past use of this tactic in the American environmental movement. Using a class and historical-based analysis, it becomes clear that there were in reality distinct movements of environmentalism that diverged in tactics and philosophy: one radical that employed ecotage faced heavy policing in the post-9/11 counterterrorist state and one peaceful that focused on advocacy and protest. The remaining environmental movement was primarily composed of white-collar professionals, such as professors, who keep away from ecotage. I conclude by examining how the current demographics of the mainstream environmental movement have both informed and limited potential buy-in from a broader population and how this could be changed in the future.

## F\*CKING ADVERBIALS: AN EXPLORATION OF THE IMPACT OF GRAMMAR

William Koepp

How are we to understand the effect of grammar on the rhetorical impact of what we say? Grammatical analysis looks to understand the effect that grammar itself can have upon the writing; grammar is fundamental to the way that we write, and the choices we make – intentional or not – influence meaning. My project analyzes the adverbial “fuck” present in the McSweeney’s satirical article “Oh My Fucking God, Get the Fucking Vaccine Already, you Fucking Fucks” to understand the relationship between humor and the adverb “fuck” in the article.

I chose the McSweeney’s article because the unnecessary and dramatic use of adverbial “fucks” presented an opportunity to better understand why the author would choose to use those adverbs. I selected sentences that had particularly cogent adverbial use and analyzed both the adverbs and the verbs they were modifying to better understand how these created a funnier article. My research shows how this kind of analysis can reveal the underlying logic behind grammar choices.



## NAMES WE CARRY: A LYRIC ESSAY'S DISSECTION OF PARTS OF SELF

Irimi Konstantinou

The names we carry are fragments of our identities that make up who we are. We name people, places, systems with names that may hold many layers; in order to unpack them, we must look behind the name. In my lyric essay, "Names We Carry," I look at the Errol Morris First-Person episode called "Stairway to Heaven" that follows Temple Grandin, a professor and slaughterhouse designer, who explains how she applied relaxation techniques used to calm anxiety attacks to her construction of less stressful slaughterhouses for cattle. Analyzing this artifact through the framework of mathematical input-output tables, I consider how the slaughterhouse serves as an example of a system that perpetuates forgetting about the "input" of beef, or in other words, the process that was used to produce beef. I then question how identities can be both revealed and hidden by names that do not fully explain how the "output" product, or person, was produced.

As a result of this piece, I found that names can be dangerous boiled-down versions of the self, that, like "beef", conceal what's at the core: "cow". Through a blending of rhetorical criticism and creative writing in the lyric essay genre, this work stresses the importance of recognizing all the parts of self, so that people, places, and systems are described for all that they are.

## COLLEGE ATHLETICS: DRUG AND ALCOHOL RULES AND THEIR RELATION TO TEAM CULTURE AND SUCCESS

Mia LaPlante

As an athlete at Hobart and William Smith Colleges, I have wondered whether the teams with strict drinking rules have more or less success than teams with less strict drinking rules: does stricter drinking rules lead to a more positive or negative team culture? There has been a surplus amount of previous research about the physical and psychological effects that drugs and alcohol have among college athletes. However, there is little to no research on the effects that drugs and alcohol have on team culture and success.

This study aims to evaluate the correlation, if any, between teams that have strict drinking rules and teams that do not. For the purpose of this study, “team culture” is operationalized as trust, respect, individual accountability, and psychological safety. My study may help coaches and captains to decide whether or not they want a team to have strict drinking rules and for the Colleges to assess the amount of drugs and alcohol that occurs among athletic teams.

## FLUORESCENT IMAGING AS A TOOL FOR AUTOMATED WEEDING

Ethan Lewis

Plants have a critical weed free period in which competition must be minimized for the maximization of crop yield, generally within the first few weeks of plant growth. There is an increasing need for the development of novel weeding techniques that optimize efficiency and efficacy at early stages of plant growth. The need for these methods stems from a continued shift away from herbicide and pesticide control methods, and from a shrinking labor force to perform the weeding.

My project aims to develop a method of differentiating planted crops from weeds via the application of fluorescent dyes to crop seeds that are absorbed via the roots and travel systemically through the plant. The plant can then be viewed under fluorescent imaging technologies and differentiated from neighboring weed crops. This process can then be automated via computer software to allow the machine to differentiate the planted crops from the weeds in a more precise manner than perhaps even manual workers could achieve.

Working in the Taylor and Jiang labs at the Cornell AgriTech station, in Geneva, NY, as part of the team developing these methods and technologies, my role has been to optimize the methodologies of the project: I have researched the dye pH, seed coating materials, soil compositions, and imaging hardware to elucidate the ideal conditions for data collection and analysis. The findings of this project can have valuable impacts on pest control in industrial agriculture.

## QUANTIFYING RACIAL DISPARITIES IN HOME ENVIRONMENTAL QUALITY

William R. Lewis

Poor indoor environmental quality can have long-term health effects on residents of a dwelling, driving up future health costs and reducing ability to work. Racial discrimination in the housing and mortgage markets has the possibility to drive racial inequality in home quality (Massey & Lundy, 2001; Mundra & Sharma, 2015). Identifying and quantifying underlying disparities is the important to remedying the racial health divide in the United States.

My study identifies disparities between the indoor environmental quality of White owned homes and Black owned homes. Using the 2019 American Housing Survey, an index of home quality was created following the Housing and Environmental Quality Index (HEQI) created in Chu *et.al.* (Chu et al., 2022). This index was used as the dependent variable in a series of ordinary least squares (OLS) regression analyses. In addition, Blinder-Oaxaca decomposition was used to differentiate the explained and unexplained difference in HEQI.

Results of these regressions show that Black owned homes on average had lower HEQI scores ( $p=0.00$ ), indicating that Black owned homes have higher indoor environmental quality than White owned homes. However, the reverse is true when only looking at non-high school graduates, suggesting that increased education and income have more of an effect on HEQI for Black homes than White homes.

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## FACTORS INFLUENCING THE COMORBIDITY OF DEPRESSION/ANXIETY AND HEART CONDITIONS

Tori Liess

Depression and anxiety are some of the most common mental health issues. Heart conditions are the leading cause of death globally. How do factors such as optimism, stress, and substance usage increase the comorbidity of heart conditions and anxiety/depression? It is hypothesized that increased levels of stress, pessimism, and substance usage will increase this comorbidity.

My study uses a longitudinal study with survey questionnaires to assess the levels of stress, optimism, substance usage, mental health status, and heart health. The survey would assess these factorial levels at various points in time to see what correlations might appear among these potential mediators.

I expect that those in either group concurrently develop the other one's condition, that increased levels of stress and pessimism would have a positive association in causing both anxiety/depression and heart conditions. As for substance usage, tobacco, nicotine, and other stimulants would have a positive association with this comorbidity, while cannabis would likely decrease anxiety/depression. By evaluating ways to limit the occurrence of these diseases and disorders, there is hope to increase the quality of life and survival ratings for individuals that have either condition.

## HISTORY OF A TRAITOR BY A TRAITOR

Kevin Lima

The story of the conquest of Mexico is told from a very black-and-white perspective when it is much more nuanced. I have a strong relation to this ingenious community since I can trace family roots to its alternative ways of looking at this subject. This project was born from my passion and interest in my family history and identity as a Mexican from the indigenous community of Tlaxcala. Using first-hand sources from the elders and community members of the Tlaxcala as well as academic sources provides me with a concrete alternative narrative to tell. It's important to me as a Latin American Studies minor and Tlaxcala descendent because history is told through the eyes of the victor, so we know that there are still stories today as well as narratives that don't get told or even acknowledged. I want more people to know that the conquest of Mexico was problematic and that the Tlaxcala community should not receive blame for just wanting to receive their independence.

## NICHOLAS CAGE: GOOD OR BAD?

Kevin Lima

I find it necessary for the Media Society department to study actors like Nicholas Cage because, Nicholas Cage has impacted the entertainment industry through over 110 films. He has not only been nominated for the highest awards in the entertainment industry and won but has also been nominated for the lowest accolades in his industry and also won, audiences don't know how to categorize him as a good or bad actor.

I will use the work of many scholars, including David McGowan, Matthew Strohl, I. Q. Hunter, and so many more to find a way to decide whether Nicholas Cage is a good or bad actor. At the very least, I hope to offer new ways to look at the actor and the films he has starred in. In the era of Social media, many actors and their stardom experience memeification that cements them in public consciences as a fantastic actor.

## STAND-UP COMEDY WITH KEVIN

Kevin Lima

Many controversial arguments on what is and is not funny lead some stand-up comedians to censor what they say, to ridicule what people find funny. I studied Freud to explain how psychoanalysis of the subconscious can explain what we find funny, in addition to analysis of stand-up comedians' delivery and comedic timing. This presentation will serve as a capsule for me and my time here at HWS, which, to be frank, has not been traditional. Hopefully, this will result in laughs from the audience. Afterward, I will then explain the logic and reasoning behind why we find certain things to be humorous. We use comedy to cope, navigate the world, reaffirm beliefs, and more. When there is an attack on what we find funny, it is personal, and I want to dive deep into humor in society and in what *is* funny.



## VILLE D'ESTE: A LANDSCAPE GARDEN

Isabel Lunken

Villa d'Este is a world-renowned landscape garden and palace representative of the Renaissance period. Located about thirty kilometers northeast of Rome nestled in the hills, Villa d'Este became a model for future garden landscapes developed across Europe<sup>1</sup>.

In 1550, Pope Julius II appointed Ippolito d'Este II, Cardinal of Ferrara, as governor of Tivoli. The governor's residence at the time was a thirteenth century Franciscan monastery along the western wall of Tivoli but Ippolito did not find it to meet his standards as a Cardinal. Instead, plans were made to construct Villa d'Este on a section of the monastery<sup>2</sup>. Pirro Ligorio was commissioned to design the palace and landscape of Villa d'Este. The construction began with excavations and reforming of the site as it sloped downward in the northwest direction, alongside the west wall of Tivoli. The garden is a luxuriant extension of the palace, and it took between 1550 to 1570 to construct a majority of the site<sup>3</sup>.

I explored Ville d'Este through site descriptions, historical accounts, and analysis of cultural significance of the site. To understand the significance of this key historical site enhances one's ability to understand the landscape.

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<sup>1</sup> "Villa d'Este, Tivoli," UNESCO: World Heritage Convention, last modified December 13, 2001, <https://whc.unesco.org/en/list/1025/>.

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<sup>3</sup> Ree, Paul van der., Gerrit. Smienk, and Clemens M. Steenbergen. *Italian villas and gardens : a corso di disegno*. Munich: Prestel, 1992.

## THE AUDIENCE EFFECT

Allie Lussier

How is dance performance influenced by the presence of an audience? Prior to studying college dance, I believed that all dance was meant to be performed on a stage. The first time I studied dance composition, I generated a study in movement that represented the Pina Bausch principle, “oversized.” Larger than the theater itself, I created movement that drove me to run out into the hallway, yelling to maintain vocal presence in the room, then returned in person. After class I reflected on how fitting the phrase was for this composition class yet how unimaginable it would have been if there had been a formal audience in the room. I wondered why I was conditioned to believe that an audience would have to be entertained traditionally.

As a dance education and psychological science double major with an interdisciplinary minor in education, I have been intrigued by the connections among these three areas of study, especially as they relate to performance. My research has led me to scholars who have addressed the gap in dance research on audience engagement. Most studies focus on performers, and the evolution of dance on and off stage. Shikanai & Hachimura (2014) support the notion that dancers' movements and portrayal of emotions are affected in the presence of an audience. These and other studies provide more questions than answers, which deepens my interest in the subject. Through my studies in dance education, I have found that there are myriad modes of performance and composition, some on stage and some off-stage, some in silence, some even interacting with the audience.

## ENVIRONMENTAL AND GEOCHEMICAL PARAMETERS AFFECTING PLANKTON POPULATIONS IN SENECA LAKE

Abby Marola

Phytoplankton and zooplankton populations in Seneca Lake are controlled by environmental and geochemical parameters that fluctuate throughout the year. Populations of *Microcystis*, a cyanophyte, are of particular interest because they contribute to harmful algal blooms because they can produce neurotoxins. Published lab work has shown *Microcystis* thrives when pH and water temperature increase (Yang et al., 2018). In a laboratory culture experiment, *Microcystis* has a competitive growth advantage over other cyanophytes (Yang et al., 2018).

Here, it is hypothesized that seasonal changes in pH and water temperature in Seneca Lake drive blooms of *Microcystis*. Plankton tows were collected from a depth of 30 and 100 meters throughout the year in Seneca Lake. Plankton populations were counted and compared against each other. Geochemical parameters including pH and water temperature were measured from water samples taken from corresponding depths on days of tows. Results show changes in *Microcystis* populations are associated with changes in water temperature.

This study shows *Microcystis* growth was driven by a sharp increase in pH, from 8 to 9, and water temperatures, from 20 to 25 °C. Yearly monitoring of these parameters may be useful to predict when *Microcystis* blooms may occur. Monitoring pH and water temperature in Seneca Lake throughout the year may be able to provide warning signs for when to expect shifts in *Microcystis* populations (Wei et al., 2021).

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## MICROPLASTICS IN DRY AIR

Hannah McGrath

Microplastics are very small plastic pieces (1 $\mu$ m to 5 $\mu$ m) that can originate from the breakdown of macro plastic waste, and an emerging pollutant. Their persistence in the environment may be harmful to human health and ecosystem health. Previous published research regarding microplastics in the environment has mostly analyzed their integrated atmospheric fallout and their presence during a few cases of isolated precipitation events; limited published research isolates dry air atmospheric fallout of microplastics. Therefore, the aim of this study is to determine whether dry air is a diffuse source of microplastic contamination.

As a part of an independent study under Professor Nan Arens, that contributes to a larger study of microplastics in the Finger Lakes region, I sampled 24 hour “dry” time periods, or those absent of precipitation, in Geneva, NY, USA. Each sample has 3 control trays that are covered with tinfoil and 4 microplastic collection trays that are uncovered. All other controlled variables are held constant as possible. Early results, for two separate sampling dates, produced average microplastic counts for uncovered trays of 89 and 61; for covered trays the average counts were 18 and 11. These 2 samples suggest an increase of microplastics in the dry air compared to control samples. Overall, this project is predicted to suggest that dry air is a diffuse source of microplastic contamination

## ECONOMICS OF PRINCELY ART COMMISSION IN THE RENAISSANCE

Pete McGriff

As Europe began to emerge from the Middle Ages and move into the Renaissance in the 15th century, the nature of commissioning works of art began to change just as quickly as the socio-economic institutions. This was especially the case on the Italian peninsula, due to the high concentration of independent city-states as well as the relative proximity to the center of the Catholic Church in Rome. As rulers vied for power and favor within their own courts and the Church, art began to take on other functions besides pure beauty. Rulers began to use art and architecture as a form of propaganda, legitimizing their rule, celebrating their accomplishments, and signaling that they were worthy of their rule through classical ideals and styles. Also, the concepts of magnificence and splendor pushed art further into the public eye as it was no longer a symbol just for the elite, but for the public too. A complex relationship between commissioner and artist arose and different positions within a court (or the Church) gave artists different amounts of creative freedom in the works they were commissioned to complete.

In this research, I aim to explore how princely commissions in the Renaissance changed the perception of artists within the court, how these relationships effected the work they created, and how these changes correlated to increased levels of investment in the arts.

## FAN'S INFLUENCE ON ATHLETES

Jason Montecalvo

Who possesses more power, the athlete or the fan? This study attempts to identify the relationship that athletes have with fans and their behavior. On a singular level, the significance that fans hold may seem minor and irrelevant, but as a multitude of scholars and data suggests, society has carved out a role for the fan within the discourse of professional athletes and the media. Research indicates that fans long for a sense of camaraderie and socialization within the medium that they actively consume, as their involvement within sports discourse provides a sense of belonging and relevance, which would be a non-plausible status without the prominence of social media.

ESPN's Marly Rivera conducted an interview with Aaron Judge on July 19<sup>th</sup>, 2022 at the annual MLB All Star Game. This study examines various reactionary tweets and replies, as these exuded emotions serve as a testament to how significant a singular media addressing from a figure like Judge can be. A 30-second clip from the interview provides enough data to thoroughly investigate the supposed relationship that athletes truly hold with fan behavior, whether they recognize it or not. Subject position, discursive genre, positionality, footing, and stake inoculation are identified within my data set. I hope that my research inspires others to be mindful and aware as they participate in online discourse.

FROM THE EMERGENCY ROOM TO THE LAB: A STORY OF CANCER RESEARCH  
AND PERSEVERANCE IN A TIME OF COVID

Andrew Moriarty

My journey sophomore year from patient to critical care technician in the same Emergency Room during the COVID-19 pandemic has brought all of the benefits of helping and hardships of the process along with it. Hearing a doctor for the first time tell a patient they have cancer, or asking a terminally ill cancer patient if they want us to attempt to restart their heart if the worst happens that night and getting the response “No” has left an impact. When given the opportunity through the laboratory experience to work on therapies to aid such patients, I jumped at the occasion.

My two semester-long independent study under the guidance of Professor Sigrid Carle allowed me to research the effect that the newly synthesized drug xyzistatin has on cancer and its potential to impact gene expression. This research project has applied my passions for change making and medicine and has pushed me in my Emergency Room work to think critically through solutions and potential treatments while caring for patients.

# ADJUSTING TO A NEW LIFE: UNDERSTANDING ACCULTURATIVE STRESS THROUGH THE STORIES OF GENEVA LATINX RESIDENTS

Gabriela Nieves

From 2003-2005, a series of interviews were conducted as a way to hear more about the life experiences and stories of local Latinx Geneva residents. A total of 30 audios were completed with the intention of providing Historic Geneva with a more thorough record of Latinx history and culture in Geneva. These audios are all in Spanish and until recently, had been left relatively unexplored.

This paper will examine these audios and analyze the experiences of these residents from a sociological perspective that focuses on acculturative stress and protective factors. Acculturation is a difficult process for many immigrants and the Latinx community in Geneva is no exception. Acculturative stress has, in fact, been linked to increased rates of alcohol abuse<sup>1</sup> and negative physical health outcomes.<sup>2</sup> Conversely, research has shown that when immigrants are able to acculturate in their own desired ways, there is much less acculturative stress and more positive effects on their well-being.<sup>3</sup>

These audios shed light onto how certain Latinx individuals are able to successfully acculturate and create their own lives in the United States while maintaining a strong sense of identity with their country of origin. This paper will provide information on which factors are beneficial and which are not, assist future immigrants that come to Geneva, and highlight the need for or expansion of certain resources in the community.

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<sup>3</sup> Buckingham, S. L., & Suarez-Pedraza, M. (2019). “It has cost me a lot to adapt to here”: The divergence of real acculturation from ideal acculturation impacts Latinx immigrants’ psychosocial wellbeing. *American Journal of Orthopsychiatry*, 89(4), 406-419. <https://doi.org/10.1037/ort0000329>



## GONE FISHING: EXPERIENTIAL ENVIRONMENTAL STUDIES AND THE HWS ANGLER'S HANDBOOK

Matthew Nusom

Where can I fish around campus? As an environmental studies major, I have always wanted to combine my passion for fishing with my studies into the interdisciplinary characteristics of the natural world. My advisor and good friend, Professor Drennen suggested that this capstone was an opportunity for me to showcase my passions and cumulative knowledge of environmental studies.

Waist-deep in a river drifting for trophy Brown trout, I thought back to my time as a first-year student and how much knowledge I had acquired as an angler since then. I see this handbook as an opportunity to share my experiences with other passionate anglers at HWS, while also integrating scientific knowledge gained from my major.

This handbook remains a starting point. I would love to see it expanded through the adventures of other, so if you are an avid angler looking for an escape from college life or a first-timer hoping to get into the pastime, welcome to my story.

## MAPPING MENTAL HEALTH PSYCHOTHERAPY RESOURCES IN ONTARIO COUNTY, NY

Clare O'Connell

Previous studies have found that public stigmas surrounding mental health conditions such as anxiety and depression have continued to decrease in the past twenty years, and that demand for psychotherapy, more commonly known as “therapy” or “counseling”, has been in increasingly high demand, especially since the COVID-19 pandemic. While the demand for psychotherapy sessions may be increasing in American society, who has the privilege to gain access to these resources? Who does not?

Ontario County is made up of many cities and towns that differ in socio-demographic characteristics such as race, ethnicity, and economic status. While some of these cities are much wealthier and developed, others have higher unemployment and poverty rates. This research seeks to analyze the extent to which psychotherapy mental health services are accessible to all people in Ontario County, comparing the location of each mental health practitioner to the sociodemographic characteristics of that surrounding area by plotting these data points on a map. Comparative analyses assess the accessibility of in-person psychotherapy in terms of proximity and type of transportation required to reach these facilities, the costs per session, the ability to use insurance or government funded medical assistance, and how many clients the therapist is willing to serve.

While further research is needed to address other types of mental health services demanded and offered in Ontario County, this study is able to draw visual conclusions about the unequal distribution of opportunity to access psychotherapy mental health services in Ontario County according to socio-demographic characteristics of race and economic status.

## THE ETHICS OF HOLOCAUST MEMORIALIZATION IN EUROPE

Sarah Palmisciano

In the Spring of 2022, I studied abroad in Freiburg, Germany, even though at first living in a country that had historically despised Jewish people like me did not seem attractive. While in Freiburg, I wrote a series of blog posts through the Blocker Fellowship that started with my own personal experiences, later evolved into discussing the ethics of Holocaust memorialization in Europe.

Europe's methods of Holocaust memorialization blurs how society evaluates success. Internationally, Germany is recognized for impressively memorializing the Holocaust. Before I went abroad, friends of mine commended the country for how they've "thoroughly taken responsibility" for their past. As I returned home, I disagreed. There are aspects of the German approach to remembrance that are appropriate, meaningful, and thoughtful, yet, there are other monuments that deny these.

There is no singular "correct" way to memorialize and generalizing German memorialization can obscure responsibility-taking. My research attempts to analyze individual modes of memorialization used in Europe from an ethical perspective.

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## MY HERO OR YOURS? LOOKING AT MONUMENTS OF AMERICAN LEADERS OVERSEAS

Thomas Perich

In the Republic of Ireland, a bronze statue of John F. Kennedy extends his hand in greeting to visitors; in Hungary, a statue of Ronald Reagan perpetually walks towards the center of Budapest's Liberty Square; in Paraguay a bust of the widely forgotten American president Rutherford B. Hayes rests on a pedestal in a city and regional department named in his honor. Statues of Americans like these exist around the world. I invite you to join me in investigating why these statues exist today.

At the broadest level, my project examines the meaning of public memorials and America's image around the world. Scholars such as Pierre Nora have investigated the role of statues in representing and creating a collective identity of a nation, yet few discuss the representation of non-citizens. When spaces outside of the United States chose to memorialize American figures, it seemingly complicates this interpretation of public statues as they commemorate non-citizens who have often not even visited the country in which they are being memorialized. My presentation will combine an interpretation of monuments as works of public art and a representation of public history, as well as an analysis of news articles to understand the inspiration for and reaction to these statues overseas. My goal is to shed light on how the American identity and legacy is used, co-opted, and perceived through these statues of Americans around the world, and how it fits into the historiographic understanding of statues as being tools of collective memory, shared identity, and nationalism.

## MULTIPLE INTELLIGENCES IN EDUCATION

Katie Pratt

The theory of Multiple Intelligences by Howard Gardner defines intelligence as not one sole ability but as many cognitive capacities. These intelligence modalities include musical, bodily-kinesthetic, interpersonal, verbal-linguistic, logical-mathematical, naturalistic, intrapersonal, and visual-spatial. While students in K-12 education settings represent multiple intelligences, these differences among learners also appear in dance education settings. Students who dance may easily develop bodily-kinesthetic intelligence from their movement training, linguistic intelligence from listening to teachers' instructions, and musical intelligence from interpreting musical scores.

As a double major in Dance and Educational Studies, and a candidate for the Master of Arts in Teaching, I am interested in the various ways students learn both in dance studios and in K-12 educational settings. In addition, as part of the Teacher Education Program (TEP), I have spent time in K-12 school classrooms and led instruction. In each subject area, I considered different learning modes and preferences to best fit the needs of students. I am curious about different teaching methodologies with multiple intelligences in mind can be applied to instructing dance.

My research aims to find ways to incorporate multiple intelligences into both the traditional K-12 classroom and dance education in after school setting and studios. Activities that integrate the arts provide opportunities for students to engage in multiple ways in their individual learning processes. Through this integration, I hope to find ways curriculum can be tailored to best suit the needs of different types of learners in all types of classrooms.

## SPORTS AS AN ENGINE OF DEVELOPMENT

Avi Rajkarnikar

Sporting has the potential to impact socioeconomic development, but few developing countries prioritize its role in national planning. International development agencies are beginning to promote sports as a powerful instrument for advancing social peace. The mechanisms that promote social peace imply that increased investments in sports activities and infrastructure may also yield broad economic benefits.

In this project, I explore the institutional structures that oversee sporting at the national level in Nepal and consider a range of barriers that prevent expansion in local communities. These barriers include lack of good governance, availability of infrastructure, and quality training. This paper uses qualitative process-tracing techniques to explore the impact of these barriers across three different sports: football, basketball, and cricket. Recognizing that developing countries work with limited resources, this comparison generates insights that can guide strategic investment in sports to maximize social impact and promote economic development.

## THE POWER OF CITIZEN SCIENCE

Emilyn Reed

Bioindicator species offer a practical approach to monitoring longitudinal environmental change and degradation. However, a significant amount of data on the species is required, often on a large geographic and temporal scale. With these upgrades, volunteer-based science has become a profound force in understanding and analyzing cumulative effects of environmental change. Although flawed, citizen science is an imperative to achieve the necessary data volume and scope for holistic analysis. The method of data collection opens possibilities unattainable by individual researchers or teams: scale, low costs, and engagement with communities for education, activism, and empowerment. Unfortunately, many citizen science projects are deemed unreliable and are not universally accepted as a valid method of scientific investigation. Due to concerns with integrity of volunteer-collected data (accuracy, standardization protocol, representative sampling), opportunities to use citizen science have gone unfulfilled.

I argue that new technological advances and statistical tools have revolutionized and improved the validity of citizen science. Through analysis of the secondary literature, I have identified techniques scientific volunteer-based projects use to ensure the highest feasible accuracy of data collected. I will show how use eBird, a popular citizen science platform for data on birds with significant quality control features, illustrates the possibilities for legitimized citizen science. Major improvements to methodology and technology will allow citizen science to meet its potential of informing environmental restoration, conservation, and policy regarding ecosystem health.

## THE VALUE OF BEES AS SUSTAINABLE COMMUNITY MODELS

Maeve Reilly

Bee and human societies already display many similarities: they exhibit both social and solitary behaviors, use natural resources to make new materials, and experience complex thought and emotion. While much work has been done on bees and other insect species, there has been little exploration of bee behavior as a model for practicing sustainability. In this project, I will explore whether a better understanding of bees can illuminate pathways for more sustainable community development for human societies.

Using the secondary literature, I will investigate bees' experience of complex thought and emotion; how we value bees as economic, environmental, and cultural assets; and the broad characteristics bees exhibit, identifying behaviors that might be helpful to replicate. This research will be informed by my own field work on bee habitats in Geneva and on campus.

I hope to learn about the diversity of apiary structures and how they may resemble human communities, as well as ways in which a more holistic view of the environment can procure a better understanding of bees. Additionally, I hope to find sources that interrogate the feasibility of implementing bee-community characteristics into our own communities. This work is a necessary step in distancing ourselves from anthropocentrism and finding ways to build healthier, more sustainable environments for ourselves.



## AN EPIC EXPLORATION OF A YOUTH COMMUNITY CLUBHOUSE

Elana Rose and Alison Shaw

EPIC Zone is a community clubhouse in Geneva, New York, that prioritizes creating a safe and welcoming space for middle-school and high-school students. For our Master of Arts in Teaching (MAT) research-based class, we will examine how EPIC Zone is viewed as a positive and secure space for its members and how the staff best utilizes funding to support this club; together our complementing projects offer an explanation of how a small-non-profit operates and supports a community in this area of the Finger Lakes.

The research suggests that such programs provide youth with a space to engage with each other outside of the normal school context, have new experiences, and improve overall health and wellness<sup>1</sup>; for out-of-school time (OST) programs like EPIC Zone, operating expenses mean a significant need for participant buy-in and public funding. Our research will examine the effectiveness and the importance of OST programs for youth and the need for community engagement and fundraising efforts, and help the club members, staff, and greater Geneva community recognize the many benefits of this space.

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## MOVEMENT AS TREATMENT FOR NEURO-DEGENERATIVE DISEASES

Liann Rueegg

By generating neuroplasticity, which restores the nervous system, movement regimens can be beneficial to people with neuro-degenerative diseases. Is it possible to use creative movement to rehabilitate a person who is suffering from a neuro-degenerative disease?

As a double major in dance education and the psychological sciences, I have studied the nervous system and how nervous systems function (or malfunction) for dancers in technique classes. Through my studies I developed a special interest in neuro-degenerative diseases and the effect of movement on the diseased nervous system. For many neuro-degenerative diseases, like Dementia, Alzheimer's and Parkinson's, there is only minimal treatment available.

Although, no actual cure exists, numerous studies have documented the positive effects of movement on the nervous system. This research brings together my interest in dance education and my understanding of movers with various disabilities and abilities.

## OPEN HOUSE MAGAZINE

Madison Sanders

*Open House Magazine* is an original real estate magazine focused on the real estate markets and trends in the Northeast region. Since its establishment in 2022, *OHM* has transformed into an Honors Project and expanded into two editions. *Open House Magazine* remains focused on operating with integrity at the forefront of the magazine's mission.

I chose to present *Open House Magazine* for Senior Symposium because this magazine reveals my passion for real estate while simultaneously showcasing my knowledge in the publishing industry. Creating *OHM* has been a rigorous and fast-paced process, mimicking the environment of the publishing industry. I produced weekly stories followed by an extensive editing process. Once the stories were polished, I worked to not only create an aesthetically appealing magazine but also a magazine that followed the publishing rules and criteria.

*Open House Magazine* is a tangible product that represents my integrity and skills built into my writing and rhetoric major that will lend themselves to my future writing, but in my future endeavors beyond HWS.

## WHO DO WE GET TO BE ONLINE? REGULATION AND THE DIGITAL PUBLIC SPHERE

Logan Schwappach

Billions of people in the world engage everyday in self-curation without the full range of legal protections and rights online. The digital public sphere, as the central space for curated forms of self-expression, is undermined by both censorship and legal requirements. Legal changes in South Korea provide a unique site in which to explore the impact of freedom on the way people fashion themselves online. The introduction of new legislation in 2008 - the Real-Name Registration - prohibits the facilitation of any website with over 100,000 daily users without citizenship verification. This reduction of anonymity in the Korean digital sphere is consistent with South Korea's de-democratizing turn and presents barriers to resource mobilization by opposition political movements.

This paper uses diachronic comparison between more and less free political regimes in South Korea to show the capacity of digital regulation to shape self-expression and undermine political opposition and social movement mobilization. Analyzing the change of individuals mobilization potentials due to online censorship can create a look into the future of digital autonomy.

## PORTRAYAL OF ABDUCTIONS IN ENTERTAINMENT

Niima Sellah

The portrayal of abductions in the entertainment industry differs from reality. To explore why, we use the following hypothesis to guide our research: though incompatible with reality, the most popular entertainment productions are those displaying the most deviant behavior. To test this hypothesis, we will need to show that the portrayal of abductions in movies isn't representative of real abduction case dynamics, then show that the most deviant scenarios are the most successful.

We will gather data on abduction in the United States to build a realistic picture of perpetrators and victims. We will then gather a sample of the 100 most popular kidnapping movies, with the coding criteria expressed in percentages, and a cross-sectional sample of 100 movies. Our coding elements are the gender of the perpetrator and the gender of the victim both in reality and in the entertainment industry; the age of the perpetrator and gender of the victim, both in reality and in the entertainment industry; the most prevalent motives both in reality and in the entertainment industry; and the relationship between the perpetrator and the victim; both in reality and in the entertainment industry (expressed as Stranger or Relative).

THE LADDER OF HUMILITY: FEMININE SEXUALITY AS BOLD OPENNESS IN C.S.  
LEWIS' *THAT HIDEOUS STRENGTH*

Taylor Shea

The story of C.S. Lewis' *That Hideous Strength* is one in which the characters Jane and Mark find radical humility within the context of their marriage and learn to give themselves to one another in bold openness. I am going to examine Jane's understanding of her own feminine sexuality and the goodness of her body as she descends the "ladder of humility" to submit herself in spousal love to Mark.

At first, Jane's story in *That Hideous Strength* was uncomfortable for me to read, but that discomfort is precisely why stories like this matter. Jane's character gives readers a theological perspective on femininity, what it means to be a woman, and self-submission in spousal love and obedience. Obedience manifests within *That Hideous Strength* as bold, radical openness in their relationship. Jane discovers that "obedience—humility—is an erotic necessity."<sup>1</sup> It does not mean subjugation but surrender to God and to one's beloved. For the first time, Jane faces the "power and deep availability for the affirmation" that expresses her feminine beauty "beyond the simply physical level of sexuality."<sup>2</sup>

*That Hideous Strength* is an important text for exploring theological questions about sexuality and marriage. Through Jane, readers can gaze upon their own sexualities with openness to divine abundance.

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A PHYLOGENETIC AND BIOGEOGRAPHICAL STUDY OF *PARSONSIA*  
(APOCYNACEAE)

Erika Sipos

In the summer of 2021, my research team at the Straub Lab was given the ability to investigate any group of plants within Apocynaceae. *Parsonsia*, a genus in the flowering plant family Apocynaceae and tribe Echiteae, is comprised of ca. 80 woody vines found across southeast Asia and Australia. Species of *Parsonsia* have been recognized to contain pyrrolizidine alkaloids, which Arctiid moths and danaid butterflies have evolved to sequester. Its two closely related genera, *Prestonia* and *Artia*, are found in South America and New Caledonia, respectively. A comprehensive phylogeny of these three genera will provide insight into their biogeographical history and potential range changes.

The first objective of this project was to infer the evolutionary relationships of *Parsonsia* species through the phylogenetic analysis of chloroplast, mitochondrial, ribosomal, and low copy nuclear gene data. The second objective was to test the monophyly of *Parsonsia* and *Artia* using *Prestonia* as outgroups. The third objective was to begin a biogeographic investigation of the origin and diversification of *Parsonsia*. Sixty-three species were sampled and sequenced to infer three maximum likelihood phylogeny trees. Two major groups of *Parsonsia* were recovered in all three trees, representing two major diversifications across Australia. *Parsonsia* is not monophyletic, because *Artia* was nested within *Parsonsia*. For conservation, ecological, and safety hazard reasons, delving into the genus *Parsonsia* within the tribe Echiteae on a phylogenetic and biogeographic scale acts as a step towards understanding plants and ecosystems as they relate to the past, and eminent change to come. In the *Parsonsia* project, my role was to determine samples as needed to answer my questions, extract the DNA from these samples, and align their genomes to create phylogenetic trees. I have used this research as the basis from my Honors project in Biology under the guidance of Professor Shannon Straub.

## FOLK FEST 2024?

Brayton Slusser

Over the past several years, American society has endured instances of violence, political friction, and the infringement of rights. How can more healthy communities be built and maintained? As a resident of Geneva, New York, I have grown to understand the importance of a tightknit community as well as the need for people to unify under an umbrella of mutual love, respect, and celebration. I believe that bringing new life to certain traditions of the past would prove beneficial to the Geneva and Hobart and William Smith communities, enabling residents and students to come together as a collective. I propose we reignite the HWS Folk Fest.

I first became aware of the HWS Folk Festival—an annual weekend musical event that saw the College and town come together on the Quad for good food and incredible music—during an archival project for my Writer’s Seminar II course. Archival photographs and articles in *The Herald* and *The Pulteney Street Survey* detail the history of the twenty-five festivals hosted, as well Folk Festival’s eventual downfall. By expanding on my past research and analyzing current needs and conditions, I hope to explain why the revival of such an event would be beneficial to our current community, and present a proposal for Folk Fest 2024.



## “VIKINGS”: RAIDERS OR TRADERS?

Robin Snetsinger

Modern popular culture depicts the “Vikings” as violent barbarian heathens, but is that the sum total of their cultural values, usage of objects, money, and mythology? Many of the words used for studying medieval Scandinavians perpetuate the mythology, but Vikings were travelers at the core. The culture emphasized prestigious gift-giving to sustain the social hierarchy, leading to the transition from money acquisition to producing goods. Custom craftsmanship was an indicator of ownership and a way of measuring transactions occurring between peoples. The violence of medieval Scandinavians and their pursuit of mere wealth is commonly attributed to coinage and precious metal items; however, as demonstrated by the Galloway hoard, these objects had significant roles in society.

Case study analysis on different types of hoards was used to recreate the true medieval Scandinavian persona. The evidence of Viking age artifacts and culture shows that they had an appreciation for art which means they were not strictly violent. I was inspired to do this project because of my experience studying abroad in Copenhagen, Denmark with my major in Art history, which gives me the ability to bring skepticism to the stereotypes that are perpetuated in popular media.

## DECARBONIZING NYC: PUBLIC TRANS OR ELECTRIC VEHICLES?

Samuel Sobel

Transportation accounts for 30% of greenhouse gas emissions in New York City. Adding infrastructure to support electric vehicles (EVs) and increasing public transportation ridership are both effective methods of reducing greenhouse gas emissions but allocating resources to improve public transportation provides greater benefits. It requires less new infrastructure, has a longer life cycle, and demands less extraction and processing of raw materials. In spite of this, replacing internal combustion vehicles with EVs is a more popular method of transitioning to a more sustainable city, as evidenced by the great extent of projects being implemented citywide to encourage increased usage of EVs.

In this paper I conduct a comparison of developing infrastructure to support both widespread usage of individual EVs, and modernization of the NYC subway system as methods of decarbonization. Using an examination of primary and secondary literature sources such as articles by the Metropolitan Transit Authority (MTA), the New York Department of Transportation (DOT), and peer reviewed literature, I begin with background on the current state of personal vehicle and subway usage in NYC before analyzing proposed plans for implementing additional EV charging stations and updating current subway lines for their potential to reduce carbon emissions from transportation in NYC. Through my research I conclude that the MTA and DOT should focus more of their resources on improving the effectiveness of public transportation than on support for EVs.

## HOW ANCIENT HISTORY CAN HELP US THINK ABOUT ABORTION AND CONTRACEPTION

Eleanor Sorbello

In modern debates, there are many appeals to the so-called “classical western tradition” and claims that we should “go back” to those times because we assume ancient people were more moral than we are. But do we actually know what the ancients were doing or do we cite some idealized or modernized version of them? One example of a modern debate that often invokes ancient morals is the case of abortion and contraception.

While some may believe this modern debate springs from new scientific discoveries or the liberation of women, and while there are many reasons for the modern woman to take or use contraceptives or have an abortion, the ancients would agree with those reasons. Further, ancient abortion and contraception were actually common because of the benefits they could bring to the family. The ancients knew how, why one should do it, and did not shame those who did. Despite their overt misogyny, ancient men supported contraception and abortion as a means of family planning, although they felt they should control the decision process. It is useful to discuss the reasons why ancient women would turn to abortion and contraception and the support and availability of procedures they had available.

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## FREE WRITING AS A PRACTICE OF IMPROVISATION

Ella Stier

This project, “Improvisation versus Composition: The Binary Myth,” a combination of choreography and written discourse, aims to research the relationship between dance improvisation and composition. It will investigate the methods of movement generation I have witnessed, developed, and studied in my previous course work. Underlying this investigation is the belief that the art of making dances would be neither successful nor complete without the influence and integration of improvisational techniques and methods.

To fully embody and test these complex concepts, I will create a dance for people to be presented at the Junior/Senior Choreographers Concert (Spring 2023) and analyze my own methodologies. The choreography will be developed alongside a paper that will dive into various methods of improvisation, discovering how they inform the choreographic process. The paper will comprise multiple chapters, discussing improvisational theories, compositional approaches, as well as specific branches of dance like Contact Improvisation, the concept of play in relation to movement and more. The four primary literary sources are “Free Play: Improvisation of Life and Art,” *Nachmanovitch (1990)*, “Taken by Surprise: A Dance Improvisation Reader,” *Albright and Gere, Eds. (2003)*, “Speaking of Dance: Twelve Contemporary Choreographers on Their Craft,” *Morgenroth (2004)*, and “Choreographing Difference” *Albright (1997)*. The creation, development and revision of this Honors Project will examine chosen creative approaches and explore the conversation between improvisation and composition, topics I find exhilarating to study.

## NATURE BASED CARBON OFFSETTING

Joseph Tate

Nature-based solutions, which involve using natural systems to sequester carbon and reduce greenhouse gas emissions, have gained increasing attention as a means of addressing climate change. I evaluate the potential of nature-based solutions in carbon offsetting and climate change mitigation. Drawing on a review of the literature, I provide an overview of the concept of nature-based solutions, types of nature-based solutions, and their carbon sequestration potential, and examine case studies of successful nature-based solutions projects and considers criticisms and challenges of these solutions. I then discuss the potential of nature-based solutions for carbon sequestration and climate change mitigation, including co-benefits and trade-offs, evaluate the effectiveness and feasibility of nature-based solutions and discusses their potential role in meeting global emissions reduction targets, and conclude with implications for climate change policy and practice and recommendations for future research.

PRECARIOUS SUBJECTS: GUANTÁNAMO BAY AND LEGAL PLURALISM IN  
TWENTY-FIRST CENTURY JURISPRUDENCE

Tanner Tattan

Since it first came into operation shortly after the September 11<sup>th</sup> attacks, the Guantánamo Bay Detention Camp has housed nearly 800 detainees. Tales of indefinite, unlawful detention coupled with the use of enhanced interrogation techniques have been the site of fierce interrogation by human rights activists and constitutional scholars; many describe the establishment at Guantánamo Bay as a turning point in how the United States handles imperial subjects. My research questions the veracity of this narrative by looking back to the Spanish-American War and the infamous Insular Cases, and later to the development of mass incarceration and Supermax prisons on domestic soil.

My inquiry relies on the textual analysis of memoirs, interviews, journalism, declassified files, Supreme Court decisions, as well as oral histories and interviews. This research further seeks to illustrate the emergence and consequences of legal pluralism—the existence of multiple legal systems in the same society—wherein imperial subjects are usurped of their First, Fourth, and Fourteenth Amendment protections, preventing them from accessing a system of justice that is equitable, fair, and timely. Linking together the history of U.S. empire and mass incarceration reveals how the Guantánamo Bay Detention Camp was not merely a byproduct of the September 11th attacks, but was rather the result of legal doctrines and practices years in the making.

## NOT A CONFLICT: SUSTAINABILITY VERSUS HISTORIC PRESERVATION

Benjamin Tesler

The fields of historic preservation and sustainable design are widely considered to be adversarial, as one is dedicated to a minimal environmental impact and the other's loyalty is to the preservation of the original designs. How can these opposing philosophies be combined or even cooperate with one another? As the need for affordable and sustainable spaces becomes more prevalent, the combination of these fields is essential.

My preliminary findings suggest that the confusion around how buildings are perceived comes from a narrowed view of their value. I used an analysis of local case studies to study how older buildings are valued, and what new value they provide upon renovation. These local buildings were given a new purpose with newer more sustainable technology while preserving their original character. This not only respected the local history and culture, but it provided new educational, commercial or residential opportunities for the community. I plan to utilize my research to provide a set of guidelines for those debating what to do with their property, with the hope that more will appreciate the hidden value of existing buildings.

## IN SEARCH OF “HOME”

Konoko Tsubakiyama

What is “home” for you? What constitutes home? Is there such a thing as a universal sense of home? How can a sense of home translate to architectural design?

Everyone has experienced the senses of comfort and attachment in home, whether it is at a house, park, person, or community. In this Honors project in Architectural Studies, I examine the notion of home in depth to seek methods of translating the elements of human senses into design language. I first look into the different definitions in culture, mainly taking anthropological and etymological approaches. Next, I use a philosophical approach to further explore the meaning and extract critical elements that constitute the sense of comfort and nostalgia. Referencing *The Poetics of Space* written by Gaston Bachelard, a breakdown of the hierarchy of needs theorized by psychologist Abraham Maslow comes into play.

My study continues with an examination of a number of artworks and architecture, many of which are installations and temporary projects. To further investigate the mystery of home, I experiment with my sense of home in two geologically distanced places by studying their spatial experiences through diagrammatic drawings and study models. By doing so, I aim to seek a method of designing space based on sensual memory and imagination that reside within humans.



## SYNTHESIS AND CHARACTERIZATION OF MOLECULAR WIRE CANDIDATES

Tess Weber

As society becomes more advanced, especially with people now moving to fully remote jobs, people are demanding more and more functionality from their technology (for example iPhones and laptops). As the functions of technology become more demanding, alternatives to silicon chips are needed to perform and power devices. As a result, my research has been focused on the controlled molecular design and characterization of a variety of molecular wire candidates. The mono-, bi- and tri-metallic molecular wire candidates impart varying electronic properties in the molecules that are being investigated for their use in device fabrication.

I began this research in the summer of 2021 through summer research and continued it through independent studies under Professor Christine de Denu.

## CHINA'S WASTE IMPORT BAN: IMPACTS DOMESTIC AND GLOBAL

Zhengrui (Mary) Wei

The documentary film *Plastic China* (2016) by Jiuliang Wang depicted and emphasized the importance of proper management of imported plastic scraps from developed countries in China and the negative impact these scraps brought to local land and the people. Two years after the film, China implemented a plastic waste import ban, known as the National Sword Policy. Since the policy was instituted, studies have documented the impacts of the policy on global waste trade, circular economy, and the challenges of plastic waste management. However, there is limited analysis of how the National Sword Policy impacts Chinese domestic plastic waste management and environmental conditions.

Combining a review of the literature and analysis of Chinese statistical databases, my research investigates the impacts the National Sword Policy brought to China itself and Chinese people, especially imported plastic waste manufacturers like those the documentary depicted. I focused on post-ban pollution reduction in coastal suburban areas where waste and scraps were imported, stored, and recycled, including impacts on employment opportunities, living conditions, and health of former workers dealing with imported waste scraps. I expect to find reduction in plastic pollution in rural water systems and in animal bodies in China. Understanding the impacts of the ban is important, because this policy could be influential in informing decisions by other developing countries to refuse plastic waste imports from developed countries, which would impact the global plastics market and could change plastic use long-term.

## *NOW BOARDING*, A TRAVEL MAGAZINE

Bridget Weier

In Fall of 2021, I went abroad to Aix-en-Provence, France for a semester. Appreciating my incredible experience, I wanted to document it in every way possible. In Spring of 2022, I took Cheryl Forbes Introduction to Printmaking class, and created a semester long project inspired by my abroad experience: I created, wrote, and designed a 48-page travel, food, and entertainment magazine.

Using what knowledge I have gained here at HWS as a Writing and Rhetoric major, I will improve these articles and revamp my magazine to showcase my improvement and passion for writing. In identifying my favorite and best work throughout my college career, I chose this magazine. I will be reading my favorite excerpts from *Now Boarding*, as well as explaining reasoning behind my design choices.

# THE INFLUENCE OF GROUP DISCUSSION ON MORAL DECISIONS

Greta Weiss

It is easy to believe that the decisions we make and the beliefs we hold are entirely our own. In actuality, extensive research has shown that these beliefs and decisions are heavily influenced by the people around us (e.g., Bond & Smith, 1996; Cialdini & Goldstein, 2004; Deutsch & Gerard, 1955). This mechanism of social influence, or social conformity, ensures that we feel a sense of belonging in our group. However, conformity can sometimes cause us to sacrifice our own morals in order to be accepted by our peers.

In my Honors research in the field of Psychological Science, thanks to the help of many student participants, I have been studying the effects of group discussion on individuals' moral decisions. When we discuss our hypothetical moral decisions and the reasons behind them with others, do we change our decisions to be more similar to the group? Are there circumstances under which our decisions become more polarized? How does this change depending on whether we are anonymous or identifiable to other members in the group?

My presentation will be a dissemination of the research I have conducted over the course of this year. I will discuss the results and conclusions from this study, the practical implications of these results, and the contribution this research makes to our understanding of social conformity and moral decision-making.

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- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *The Journal of Abnormal and Social Psychology*, 51(3), 629–636. <https://doi.org/10.1037/h0046408>

## COMMUNITY STRENGTH THROUGH INTERACTION

Morgan Wright

Though they may live in the same communities, people of different socioeconomic backgrounds may not have meaningful interactions as they all live relatively different lives. Community-based programs have the potential to create strong connections between people of different socioeconomic backgrounds as they interact in designated spaces, creating opportunities for community members to form and maintain bonds. This practice of relationship building can result in safer and stronger communities as people begin to rely on one another.

I participated in longitudinal ethnographic research at various community lunch program locations throughout Geneva, NY, observing how relationships, new and old, can potentially be strengthened through participation and interactions. The importance of creating relationships with people of different socioeconomic levels can be illustrated through higher levels of empathy, rejecting the us versus them dichotomy, and overall sense of safety in a community. Working to strengthen communities can further result in local policy change, making the impact of relationship building influential on all social levels.