



URCAD
UNIVERSITY RESEARCH AND
CREATIVE ACHIEVEMENT DAY

Oral Presentations – Morning Session 1

Location: Sprague/Carleton – Student Center

Time: 9:20 AM – 12:00 PM

Teenage Rebellion

Matthew Adkins

History-Secondary Education

Advisor: Dr. Jacob Werblow

The Connecticut Elementary and Secondary Social Studies Standards, as it currently stands, begins the curriculum for Modern U.S. History at Reconstruction, ending at National Identity & the Digital Age. As a teaching candidate, I feel that covering all of those eras of American history is not only a daunting task for teachers, but also for students in their learning and engagement. History is obviously the study of the past, but that should not mean that with every passing decade, we continue to begin from the same starting point while failing to end with more current topics; the title of the course is “Modern” U.S. History after all. High School students today are not concerned with learning events that date back 100 years or more; leave those topics to History majors in school. I am proposing that the curriculum standards should begin with the post WWII era—the 1950’s. With this era as the jumping off point for the school year, not only are the topics more relatable to their own lives, for example- the “Teenage Rebellion,” it will also allow educators to cover events that more directly impact them still today. Making it more relevant to them in the hopes of increasing their engagement to enhance their learning, and hopefully, their interest in the past.



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The Role of Place Based Learning in Social Studies

Peter Lugo

History

Advisor: Dr. Jacob Werblow

Providing students with an understanding of the place that they live in is an important and effective way to drive engagement and interest in the environment that they inhabit. Most social studies pedagogy ignores the role of place on students and sanitizes the socio-cultural context of the events students are expected to understand. This does not require events that are costly in time and money to visit a far-off historic location. Rooting history to the local context provides just as much insight for students.



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The Extra Credit Dilemma

Jaelyn Taylor and Gabriella Breer
English Secondary Education
Advisor: Dr. Jacob Werblow

This presentation will outline a class debate that was structured around a lesson that gave the option of extra credit for those who were willing to present their summative assessment. The assessment required students to craft a speech about a topic important or relevant to them, using motivational qualities of Dr. King's "I Have a Dream" speech. This lesson sparked debate as some student teachers believed the presentation should be required, rather than suggested for extra points. In this presentation, we will analyze the debate of summative presentations labeled as extra credit options and explore all possibilities in how to include all learners when making that key decision. As all sides bring valuable insight on how to conduct extra credit options, we will take a look at all concerns from teachers that may arise and carefully evaluate possible subtle and not so subtle implications. Taking into account the Universal Design for Learning model which ensures flexible and inclusive learning experiences fit for all learners of diverse needs, we will deconstruct internal assumptions and create inclusive and potentially successful solutions to the ongoing debate.



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Integrating Machine Learning and Python- Based Automation to Quantify Crayfish Behavioral Patterns in a Plus Maze

Tomasz Lukaszczyk
Health Science Biology
Advisor: Dr. Syed Y. Abbas

Quantifying animal behavior is often limited by labor-intensive manual scoring and potential experimental bias. In crayfish (*Procambarus clarkii*), plus-maze navigation is used to assess anxiety-like and exploratory behaviors, but traditional tracking methods are time-consuming and may alter behavior when physical markers are used. We developed an integrated computational pipeline combining machine learning and custom Python-based analysis to automate behavioral quantification. Markerless pose estimation was performed using DeepLabCut (DLC), trained to track crayfish eye position across video frames. DLC-generated x-y coordinates were used to reconstruct 15-minute navigation trajectories within a plus-shaped maze. To extract behavioral metrics, we implemented custom Python scripts that convert tracking data into quantitative measures, including dwell time, arm-entry frequency, and transition patterns across defined maze regions. This automated approach captures detailed movement patterns while substantially reducing analysis time compared to manual scoring. It provides a low-cost alternative to commercial software and preserves natural behavior through tracking. This framework establishes a scalable and reproducible platform for behavioral neuroscience. Future work will validate computational outputs against human scoring and apply this approach to examine how environmental factors, such as light exposure, influence anxiety-like and social behaviors in crayfish.



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Racebending F. Scott Fitzgerald's The Great Gatsby: Adaptation, Fanfiction, and the Subjugation of East Asian Women in mingbee's “ 黛西,我要你爱上我 [All I want is your love]”

Georgine Revilloza

English

Advisor: Dr. Amanda Greenwell

Fanfiction, also known as fic, are fan-written stories based on existing texts. Fans can reshape established characters and settings, including “racebending” or altering a character’s race. This presentation dissects how Archive of Our Own user mingbee racebends F. Scott Fitzgerald’s *The Great Gatsby*’s characters Jordan Baker and Daisy Buchanan from white to half-Taiwanese in the fic “黛西,我要你爱上我 [all i want is your love]” to contend with East Asian women’s subjugation. I use the lenses of Adaptation Studies, Fan Studies, Reception Studies, and Critical Race Theory to decipher how mingbee transforms the hypotext’s elements to enter a conversation about the lack of personhood and agency of not only white women from the early 20th century but Asian women of today. Theoretical concepts such as “bricolage” outline mingbee’s process of adaptation while Leslie Bow’s “racial abstraction” exposes Asian women’s dehumanization. I also draw on how Japan and the United States’s control over Taiwanese women in World War II influence who has power over mingbee’s Jordan and Daisy in the present and why their Otherness forbids them to have power over others. As my presentation concludes, paratext and Asian-signified objects argue for readers to recognize Asian women’s agency, establishing fic as a creative platform to confront racial tension. Attendees will leave the presentation understanding how fic of canonical texts is used to address the oppression of today’s marginalized communities.



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The New Britain Industrial Museum

Tyler Nguyen
Graphic/Information Design
Advisor: Dr. Jeanne Criscola

The New Britain Industrial Museum's Business Plan is a collaborative effort between the New Britain Industrial Museum and Central Design, highlighting the museum's purpose in covering New Britain's industrial history and its plans for future expansion. The book also showcases graphics from the museum's archives, sourced from notable figures such as Stanley and Corbin, who were industry pioneers during the Industrial Revolution in New Britain.



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Barbenheimer Anthology Launch & Exhibition Celebration

Angelo Reyes
Graphic/Information Design
Advisor: Dr. Jeanne Criscola

Barbenheimer looks at the cultural crossover between Barbie and Oppenheimer as something shaped just as much by audiences as by the films themselves. What started as an internet meme turned into a shared cultural moment, showing how putting two very different things side by side—fantasy and history, spectacle and consequence—can create new meaning.

The 12 panels explore this idea through design, using typography, image-making, and composition to reinterpret both films. By approaching design as an active way of thinking and making, the exhibition shows how visual form can reshape narratives and offer new ways of engaging with media culture.