

**CONFERENCE PROCEEDINGS**

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*Listed below are abstracts of student-faculty collaborative work presented at regional, national, and international conferences.*

Gabriel Randazzo and Lisa LaJevic

*(Lisa LaJevic, Faculty Sponsor)*

*Cleaning Our World Through Art: Exploring Ecology Through Contemporary Art.*

Presented at the National Art Education Association (NAEA) Conference, Ft. Worth, TX, March 7-10, 2013

Recent literature suggests the importance of incorporating contemporary art in the classroom (Mayer, 2008; Walker, 2001). Often exploring global issues, contemporary art investigates interdisciplinary themes that are prevalent in everyday life/culture, and challenges viewers/students to examine issues and formulate their own beliefs. Highlighting this philosophy, our presentation focuses on how contemporary artists who explore important ecological issues can be incorporated into the art classroom. Investigating artists such as Moose, Scott Wades and Alexandre Orion, and their working with reverse graffiti, an ecological reductive artmaking process that is created by removing dirt from a surface, we offer practical, innovative lesson ideas that integrate art with science. Supporting the conference theme, we explore global environmental issues such as pollution, and creative lessons that make a difference by actively cleaning up our community/ies through art. This presentation helps push traditional art education boundaries by promoting student understandings of art, ecology, world, and self.

Jessica Scardino

*(Dr. Lynn Gazley, Faculty Sponsor)*

*Religious Attendance and Happiness: An Application of Interaction Ritual Theory*

(1) Presented at the 83<sup>rd</sup> Annual Meeting of the Eastern Sociological Society, Boston, MA, March 21-24, 2013

(2) Presented at the 83<sup>rd</sup> Northeast Regional Honors Council Conference, Philadelphia, PA, April 4-7, 2013

(3) Presented at the 108<sup>th</sup> Annual Meeting of the American Sociological Association, New York, NY, August 10-13, 2013

Previous research on the relationship between religiosity and happiness has emphasized that happiness results from the social cohesion experienced by belonging to a faith community and the development of positive coping skills. I propose that this relationship can also be explained using "Interaction Ritual" Theory (Collins 2004). Using data from the 2010 General Social Survey (GSS), this study examines the relationship between religiosity and happiness using a binary logistic regression. Findings indicate that when controlling for age, race, sex, and socioeconomic status, there is a positive relationship between the frequency of religious attendance and increased happiness levels. I then explain these findings considering religious services as an "Interactional Ritual" (Collins 2004). While this study uses an application of "Interaction Ritual" Theory in order to explain the positive relationship between happiness and religious attendance, the quantitative analysis may serve to support elements of Collins's theory by providing a measurable dimension of the emotional effects of ritual participation.

Francisco Estevez and Shahzore Qureshi

*(S. Monisha Pulimood, Faculty Sponsor)*

*Students Organizing Against Pollution: Computational Thinking Across Boundaries*

Presented at the ITiCSE 2013 ACM SIGCSE Conference, University of Kent, Canterbury, United Kingdom, July 1-3, 2013.

There is a growing need in computer science education to develop courses that demonstrate the articulations between computer science and an array of computing-dependent fields. This poster describes an effort to develop a model for students and faculty to collaborate across disciplines and with a community organization to develop computational solutions to address complex real-world problems. Students in computer science classes are collaborating with students in

## CONFERENCE PROCEEDINGS AND BIBLIOGRAPHIC LISTINGS

journalism classes and Habitat for Humanity, to develop a web-based system that manages pollution related data. This is an initiative aimed at empowering citizens in the Trenton area of New Jersey with the opportunity to learn, share, and contribute pollution data while encouraging them to become participants in environmental advocacy and public policy deliberations on these issues. While students focus on the objectives of the individual courses, they are also deeply engaged in the complexities of privacy, security, accessibility of data, user-centered design, etc. as they ponder civic justice issues.

Amanda Soler, Tiffany Piatt, Leeann Thornton

*(Leeann Thornton, Faculty Sponsor)*

*Molecular genetic and biochemical analysis of the role of CYP72A cytochrome P450s in regulating plant growth*

Presented at the American Society of Plant Biologists National Conference, Providence, Rhode Island, July 20-24, 2013

Plant metabolic responses to environmental conditions require thousands of enzymes that must work in delicately balanced concert to facilitate plant growth and defense against pests. Plants with the most tightly regulated metabolism and growth are more likely to thrive. The cytochrome P450s (CYPs) are a group of enzymes that catalyze biochemical reactions in all organisms, and they are particularly important in plant metabolism. There are hundreds of CYPs in plants, and they are grouped into subfamilies based on genetic similarity. Our approach is to combine a molecular genetic analysis with biochemistry to describe subtle differences in apparently redundant CYPs from Arabidopsis. The CYP72A subfamily appears to contribute to producing defensive secondary metabolites in response to stress and herbivory. The subfamily is found in all plants but appears to be diversifying in recent evolutionary history. We are examining double and triple mutants to determine the role the enzymes play in maintaining optimal plant growth in Arabidopsis. We are examining the structural constraints of the subfamily that will provide insight into the biochemical activity of the group from multiple plants. We are also optimizing expression of the CYP72A enzymes in yeast for direct analysis of substrate interactions. This work provides insight into the ongoing evolution of plant genomes and the metabolites produced by CYP72As.

Shannon Grooms

*(Emily Bent, Faculty Sponsor)*

*(Re)theorizing the Margins: A Comparative Analysis of Gloria Anzaldua's Borderdwellers and Kate Bornstein's Gender Outlaw*

Presented at the 22<sup>nd</sup> Annual Women and Society Conference, Poughkeepsie, NY, October 25-26, 2013

This paper is a comparative analysis of Gloria Anzaldua's conceptualization of the border dweller (1987), and Kate Bornstein's gender outlaw (1994). It underscores the theoretical similarities between these two divergent concepts, and in doing so, provides a framework for understanding the experiences of those forced to exist outside of culturally and geographically enforced binaries. The author reads Anzaldua's, *Borderlands/La Frontera: The New Mestiza* as a queer text, and places central concepts such as: the border dweller, the coalition state, and new mestiza consciousness into direct conversation with Bornstein's theories on gender and male privilege, in *Gender Outlaw: On Men, Women and the Rest of Us*. Based on this theoretical analysis, the author suggests that the border dweller and gender outlaw experience parallel identities from the spiritual and physical consequences of being 'caught in between'. Where the *border dweller* experiences a hybridity that comes from the two locational oppositions, (i.e. the US/Mexico border), the *gender outlaw* experiences this hybridity as two oppositional genders, or the feeling of being neither fully male nor fully female. Taken together, this paper proposes that the border dweller and the gender outlaw offer us a new understanding of the margins and the marginalized experience than previously conceptualized in feminist scholarship.

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