

Giles T. Brown Student Project
and Research Symposium



March 15, 2019

Thankyou

Deans Michael Sutliff and Tara Giblin (currently Interim Vice President of Instruction) conceived of this wonderful opportunity for our students in early 2016, and we thank them for guiding us all through to see it to fruition over the years.

Committee chairs Duy Pham and Rache Ridnor took the lead on many of the logistics for today.

The 2019 Symposium Committee members are many

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Keynote Speaker

Location: MBCC162

9:30am-10:45am

Presenter: Michael Sutliff
Dean, Kinesiology & Athletics

Posters and Exhibitions of Work

Location: Horticulture Garden

10:00am-10:50am Presenters and Reviewers only
11:00am-12:00pm Presenters and General Public

Posters

Thomas Amick, Designing a planetary

Olivia Jaggi A Comparative Study on Suicide Prevention
Mentor: Ulrike Green

Josh Lewis Auditory Manipulation and Recollection
Mentor: Masako Ura

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Lunch

Location: Horticulture Garden

12:15pm-1:45pm

Students and family, faculty mentors, presentation evaluators, and Symposium committee members and supporters

Presentation of Awards

Location: Horticulture Garden

1:45pm-3:00pm

Caitlin Bates Mantle Xenoliths of the Mojave Desert. Nineteen samples of mantle xenoliths were collected to better understand the nature of the uppermost mantle beneath the central Mojave Desert of California. Samples were collected from within host rocks that included both basaltic lava flows and cored bombs from two Quaternary volcanic centers at Dish Hill (Siberia Crater) near Ludlow, California and the Cima Volcanic Field near Baker, California. The distinctive macroscopic feature of the Dish Hill xenoliths is their coarse

seen influenced by post colonialism, grappling with the issue of mimicking colonial oppression with violence. Field studies connect this research to real world disquisition about current India's issues surrounding its social and government structures. The research on India shows the negatives of migration linked to decreasing productivity in farming areas and higher poverty levels. The continual influence of modern ideologies has caused families, employers, and servants to treat each other with aggression as reflected in *The White Tiger* and India.

Nabiha Hasan, *Silence of the Lands: The Ecological Destruction of Post War Iraq*. The Iraq War has caused much destruction in its wake, but one victim that often goes unnoticed is the environment itself and the balance that Iraq's natural systems creates in favor of its plants and animals. Although countless studies have been published that track the aftermaths of oil spills, burning of toxic trash, and sulfur oxide fires on the health of the Iraqi human population, this literature review will explore the effects of this environmental warfare on the biodiversity of the native plant and animal populations of Iraq, focusing on the birds and marshes of the country. The methodology began with searching six key phrases that comprised the topic: "biodiversity of Iraq", "environmental issues of Iraq", "environmental warfare of Iraq War", "effects of the Iraq War", "oil spills in Iraq", and "sulfur oxides in Iraq". The results indicate that the unnatural concentrations of various toxicants in Iraq's atmosphere and waterways has done unprecedented damage to its water and air quality. Older articles were reviewed to confirm the

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n Wiley / Taylor & Francis Group, 2017

Steele,Daley,Curling,Gibson,& Green,2017).Moreover,parents
in the U.S.are still expected to

significantly decrease national suicide rates in the United States. Although the restriction of firearms cannot solve the underlying problem, it would still serve as an important first step towards the improvement of suicide prevention overall.

William Jamieson, Predicting the Collapse Using Economic Data of the Weimar Republic to Predict the Future of America's Economy After the end of the Great War, Germany was plunged into economic turmoil marked by rapid inflation. When the German economy did recover in the mid 1920s it was not long before the Great Depression threw almost every nation on Earth into chaos. A similar story can be told almost a hundred years later when the Great Recession occurred the economies of First World nations suffered immensely. It was in 2009 when the American banks were bailed out that the economy began to slowly recover, however, the economic growth is not sustainable and it may lead to a disaster worse than the Great Depression.

Lana Jones and Tara Jones, Impacts of Mesopotamian weather on humankind. The weather conditions experienced by the people of

amount of biofluorescence four *Condylactis gigantea* anemones were exposed to different lighting scenarios and observed over a two-month span. Under normal white light conditions, these organisms appeared a cream color. However, when exposed to blue light, and using a yellow light filter, their biofluorescence was able to be viewed, producing a lime green glow. As these anemones were placed in close proximity to a white light source, over time, they increased the population of zooxanthellae, microscopic photosynthesizers that live within other organisms. After a two-month test period, the presence of zooxanthellae changed their color from a cream color to an orange-brown color. When placed under the blue light conditions, their fluorescence had increased. This suggests that there is a correlation between the presence of zooxanthellae and the amount of biofluorescence. A higher concentration of zooxanthellae may be an indicator of health and ability to photosynthesize effectively. The biofluorescence associated with the zooxanthellae could therefore enhance the husbandry of anemones. Future studies could explore how the other aspects of coloration, such as the organism's body color, could alter the anemone's fluorescent ability. Further research of biofluorescence could also lead to a deeper understanding of the health of other photosynthetic organisms in the ocean and their ability to withstand bleaching events.

Carlos Mogrovejo, Analyzing the Manifestos of Shooters. There have been numerous shootings across the United States within the past 2 decades yet only a small percent of the perpetrators have created manifestos to document their state of mind prior to the attacks. Through studying these manifestos and analyzing trends among them, there is hope that there will be a list of factors leading up to the shootings that tie them together. In studying manifestos from Dylann Roof, Seung-Hui Cho, Elliot Rodger, Kyle Andrew Odom, and many more, there are clear links involving sex, social isolation, patriotism, racism, religion, political ideology, history, and mental illness. By studying each manifesto under a scoring chart, it was easy to link the characteristics found throughout them. After this was completed, I began researching more into the backgrounds of the individuals to receive a greater grasp of the links found. This research was enforced by their manifestos and help to depict the mental state that they had prior to their shootings. As previously listed, many of the shooters had strong racist and patriotic ideologies. Research found that this was greatly influenced by previous personal and societal experiences such as the Presidency of Barack Obama, the rise in the power of minorities, and the fear of losing power on American soil. These negative experiences backed by a history of social

isolation and mental illness, often compelled the culprit to engage in such a behavior they felt would make them a martyr. As further research was conducted, many of these tragedies became one overall story of frightened individuals with a delusional goal to save the country from threats they felt had no other way of being addressed. Some of the shooter even named previous shooters as inspirations in their manifestos. The goal of this research project is to attempt to better understand underlying traits within previous shooters, to hopefully help predict future shootings, as well as to provide additional information as to how these could have possibly been averted.

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Matt Morton: How do we estimate the negative effects of local
Climates. Throughout history, numerous civilizations have
and fallen – both large and small alike, and for reasons that are
dissimilar. However, the cause of collapse for many of these
collapse and (hol 1 Tf 0.001068eIT3 1 Tf 0.05)Tj 9 <0 2.361 ughsomet

response to the current administration and recent troubles in our country be considered rites of intensification?

In order to answer this question, I will focus specifically on women's issues in particular three movements: #metoo, the women's smarch, and the increase in women running and being elected for office. I will look at publicly available data of women running and elected to congress those involved in the #metoo movement, as well as the women's smarch. I will also analyze data I gathered through interviews of those connected to these movements.

In this time of doubt, upheaval and disagreement not just over opinions, but even basic facts, rites of intensification are important to reaffirm the society's commitment to a particular set of values and beliefs.

Joanna Sanchez Perception of Body Image. Thinness is one of the main beauty standards and previous studies consistently supported that internalization of the thin ideal can contribute

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Daniel Yos, Owen Osborne, and Osamu Á•

ProjectRAISE
UndergraduateResearchat
CaliforniaStateUniversity,Fullerton

ProjectRAISEfocuseson increasingthe numberof Hispanicandlow incometransferstudentswho complete bachelor'sdegreesin STEMandenter a careerin these fields. TheProjectRAISEundergraduateresearchprogram offerssummeropportunitiesfor selectedcommunity collegestudentsto gainfirst handexperiencin scientific investigationin a dynamic,collaborativeresearch environmentwith CSUFfaculty. ProjectRAISEalsooffers partner communitycollegesa transition programfor STEM studentstransferringto CSUF.Participantsin the RAISE TransferProgram(RTP)receivepriority registrationaswell asaccessto academicgraduationandcareerspecialists.

In 2018,five OCGstudentsconductedresearchat CSUFas part of ProjectRaise.Below are the student abstracts.

Andrew Alvarez– FacultyAdvisor:Dr. ParvinShahrestani's Lab
Developinga methodfor the dechoriationof Drosophila melanogasteeggs.

It is knownthat gut microbialpopulationshavea significant influenceon their host'sphysiologicatraits. However,the role of individualbacteriathat are presentin the Drosophilamicrobiome asit relatesto agingis not well researchedTherefore,our researchis focusingon observingthe relationshipbetweenthe bacteriain the microbiomeandthe evolutionof physiological traits. Onesuchwayto do soisto createa populationof flieswith a sterilemicrobiomecompletelyvoid of bacteriaandraisethem in a sterileenvironmentwhich will act asour control group.In order to accomplishthis, we (i) Tfc5b

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About the donor:

Giles T. Brown and his wife, Beth, were founding members of the faculty at OCC and met here at the college. Giles left OCC in 1959 to become a faculty member at Cal State Fullerton and eventually became the Dean of Graduate Studies.

Giles T. Brown's gift to the college funds programs and activities that benefit instruction. The Forum Theater also bears his name.

