Humans have an intrinsically symbolic nature that leads individuals to seek a stronger connection to the physical world around them. At numerous archaeological sites all over the world, red ochre has been utilized as a decorative pigmentation with an evidently ritualistic and spiritual purpose. For example, on the Kamchatka Peninsula in Russia, multiple Upper Paleolithic burial pits have been filled completely with red ochre, which covered the bones and related grave goods. Early hunter gatherers at the Tanginak Spring Site in Kodiak, Alaska coated their living surfaces with red ochre and archaeologists are divided about whether this paint is a byproduct of waterproofing tent seams or a purely ritual application of color to ritual spaces. In my research, I will attempt to test predictions regarding whether or not the residents of this particular Ocean Bay 1 site were employing ochre for its abilities as a tent waterproofing agent or if its pigmentation served a purely spiritual purpose. Through experimental archaeology and an analysis of the ochre and ochre processing tools discovered at the Tanginak site, I will gather evidence to either support or disprove my hypothesis that ochre served both a practical and symbolic purpose.
Every fall, thousands of Kuwaiti and Saudi men depart for the U.S. in hopes of achieving a state-of-the-art post-secondary education that many others can only dream of. For many of these students, the challenges of maintaining a sense of identity in America turns out to be much more than they bargained for. Now that these students are no longer directly impacted by the societal expectations of the homeland, they may choose to act in ways that were never permissible. However, for this particular community, adjusting to life in the U.S. is anything but stress-free. Navigating language and cultural barriers, as well as resisting institutionalized bias, such as the growing rise of Islamophobia and anti-Arab sentiment in the U.S. public sphere has left these students feeling unnerved and unsettled. With the expectations of their overseas family members and friends still weighing heavily on their minds, and the expectations of a foreign nation that holds a polarized set of values and traditions looming large in their lives, these students are forming friendships that would have not been formed otherwise. Through semistructured interviews and participant observation, this study explores the impacts of temporary migration on the ethnic, religious, socioeconomic, and gender identities of Kuwaiti and Saudi men who are studying abroad in Seattle. By challenging hegemonic societal expectations from the homeland and defying the assimilatory practices of their new, temporary home, these students have managed to craft a new sense of identity that has never been experienced before. Optimistic, yet uncertain, these students have much to consider before embarking on their next steps in life. This study seeks to shed light on the resiliency and the solidarity of a young group of Kuwaiti and Saudi men who are studying abroad in Seattle and offers insight into the various intersectionalities of their identities.

SESSION 2H

DECOLONIZING RESEARCH: HEALTH DISPARITIES AND PACIFIC ISLANDER COMMUNITIES

Session Moderator: Holly Barker, Anthropology

MGH 254

3:30 PM to 5:15 PM

* Note: Titles in order of presentation.

Researching the Health Implications of Displacement for COFA Migrants
Carmen Villagomez (Carmen) Borja, Senior, Political Science
Rachael Lyne Gurwan (Rachael) Tamngin, Senior, Anthropology: Medical Anth & Global Hlth, Biology (Physiology)
Randizia Baby (Randizia) Crisostomo, Senior, Anthropology
Natalie Reese (Kamaka’ike) Bruecher, Freshman, Pre-Major Mentor: Holly Barker, Anthropology

How do current U.S. Government healthcare policies affect Micronesians? As legal “aliens,” indicated in the Compact of Free Association (COFA), what challenges do Micronesians experience while navigating the healthcare system in Washington State? Our research demonstrates that for 30 years Micronesian families migrating to the U.S. in search of beneficial opportunities experience great amount of difficulty when accessing healthcare in Washington State. Current U.S. policies towards migrants from the Freely Associated States perpetuate Dr. Paul Farmer’s theory of structural violence by failing to acknowledge the United States Government’s role in the healthcare burdens residing in the bodies of COFA citizens, due to U.S. colonialism within the region. Preliminary results indicate that different subgroups have distinct experiences in comparison to others. Methods of research include interviews with Micronesian students and community members, specifically from March 1st, 2016, A Day of Remembrance –solidarity event with the Marshallese community at the Burke Museum on the anniversary of the largest nuclear weapon ever tested by the U.S. Government.

SESSION 2K

MCNAIR SESSION - CRITICAL PERSPECTIVES IN KNOWLEDGE MAKING: INDIGENEITY, RACE, GENDER AND COMMUNITY

Session Moderator: Carolyn Pinedo Turnovsky, American Ethnic Studies & Law, Societies and Justice

MGH 287

3:30 PM to 5:15 PM

* Note: Titles in order of presentation.

Developing Community-Based Monitoring Programs for Endangered Archaeology
Alyssa Kudray, Senior, Anthropology, Portland State University
McNair Scholar
Mentor: Shelby Anderson, Anthropology, Portland State University
Arctic areas such as coastal Alaska are experiencing some of the most severe effects of global climate change. These effects include melting of the permafrost, shorter winters and longer summers, more frequent and severe storms, and a drastic loss of shoreline. These factors have led to the endangering or destruction of many archaeological sites. Interdisciplinary scientists have worked together to form a model to help monitor the condition of coastal archaeological sites and the effect that the climate has upon them. However, in formulating this model they were unable to include the perspective of local indigenous groups and other local community members. The goal of this project is to add to the existing model a way of collecting and including the perspectives of the local communities and indigenous groups who often have better access to and knowledge of these sites than outside interests do. The fieldwork for this project takes place at an archaeological site near Barrow, Alaska which is currently eroding into the ocean due to shoreline loss. By utilizing the existing community ties that the archaeologists working at this site have cultivated I will show that through the involvement of all members of the local community the monitoring of local sites can be more comprehensive.

**Poster Session 3**

Commons West, Easel 17

2:30 PM to 4:00 PM

Hospital-Based Emergency Department Visits with Traumatic Dental Injuries among Children and Adolescents in the United States: Nationwide Epidemiological Data

Maria Angelica (Maria) Manzueta, Senior, Biology (Physiology), Anthropology

Mentor: Raquel Capote, Orthodontics

Traumatic dental injury (TDI) is an important public health issue in the pediatric population. Patient demographics, hospital characteristics, and diagnoses present with TDI visits to emergency departments in the United States are poorly understood. The objective of this study was to provide nationally representative estimates of hospital-based emergency department (ED) visits for broken teeth and loss of teeth due to trauma in patients 21 years old and younger. Nationwide Emergency Department Sample (NEDS) for the year 2012 was used. All hospital-based ED visits occurring among 21-year-olds and younger with an International Classification of Diseases-Clinical Modifications, volume 9 code for broken or loss of teeth due to trauma were examined. In 2012, hospital-based ED visits with a dental injury diagnosis comprised an estimated total of 66,656 (0.18%) of all ED visits among 21-year-olds and younger in the United States. Of these, 64,732 (97%) had a diagnosis of broken teeth and 2,132 (3%) had loss of teeth due to trauma.

Medicaid was the primary payer for 44% of dental injury ED visits. The majority (72%) of the total ED visits that had a diagnosis of dental injury were accompanied with other diagnoses. Of the dental injuries with at least one concurrent diagnoses, 42% were open wound to head or face, 10% were accompanied with facial fracture(s), and 4% had a concomitant diagnosis of concussion. Among specified causes of injury, "fall" and "struck by; against" were the most frequently reported causes of TDI (47% and 30%, respectively). The primary mechanism of injury in children 6 years of age and younger were falls as compared to middle and late adolescent age groups examined. Hospital-based ED visits that had a dental injury were rarely reported, and often accompanied with other diagnoses.

**Poster Session 3**

Commons West, Easel 6

2:30 PM to 4:00 PM

Zooplankton Abundance, Diversity, and Distribution in San Juan Channel during Autumn 2015

Rachel Elaine (Rachel) Raymer, Senior, Biology, Anthropology

Mary Gates Scholar

Mentor: Jan Newton, Applied Physics Laboratory, Schools of Oceanography and Marine Affairs

The purpose of this project was to record zooplankton abundance, distribution and diversity at two different study sites in the SJC (San Juan Channel) during the autumn of 2015, one with strong oceanic influence and one more estuarine, while continuing an annual, long-running dataset. Previous projects have focused on factors associated with distribution patterns, such as tides and tidal current speed. In this project, possible relationships between dissolved oxygen and the density of certain taxa were investigated using linear regression analysis both within the autumn 2015 dataset and over preceding years of data collection (2007-2015). Intra-seasonal temporal changes in abundance and distribution were observed during autumn 2015, some of which were consistent with that found during other years. While diversity was consistent across the years, the specific community assemblages found at the two sites varied. Dissolved oxygen was seen as a factor co-varying with abundance of certain taxa. If conditions are suboptimal for plankton survival (oxygen levels, nutrients, temperature) it may result in negative ecological consequences for animals farther up the food chain (Frederiksen, 2006). Information on plankton abundance as it relates to the changing oceans will be valuable in the years to come. In the SJC Caridean shrimp and gastropod larvae had positive relationships (p=0.008 and p=0.014) and polychaete trochophores had a negative relationship (p=0.018). However, these relationships did not all hold across the years.
Understanding Spatial Memory in Rhesus Macaques Foraging in Virtual Reality
Albert E (Albert) Ng, Senior, Anthropology, Neurobiology
Mary Gates Scholar, Innovations in Pain Research Scholar, UW Honors Program, Washington Research Foundation Fellow
Mentor: Elizabeth Buffalo, Physiology and Biophysics

There have been major advancements in the use of Virtual Reality (VR) technologies in military, medical, and educational applications. However, it is not well understood how representations of spatial memory are encoded by the bi-modal, visual and audio sensory stimulation inherent to VR interactions. Previous studies have identified the hippocampus and entorhinal cortex as structures involved in the formation of spatial memory. Because Alzheimer’s pathology affects these medial temporal structures and is characterized by deficits in memory, spatiotemporal reasoning, and route finding, better understanding of spatial representations in medial temporal areas would help create VR with potentially therapeutic effects in patients with memory deficits. Using VR, non-human primates will utilize a joystick to move a first-person avatar and perform a foraging task wherein they must collect virtual objects to obtain food rewards. We hypothesize that monkeys will use a demonstrable strategy to optimize behavior in our VR task and propose experiments and computational methods to identify unique strategies wherein memory and route planning are being used. Preliminary results indicate that the three monkeys fully trained on this task utilize unique strategies to obtain food rewards. Furthermore, the evolution of individual strategies over the training period suggests that memory and other factors may play a role in route planning. Corresponding and ongoing research is aimed at identifying neural representations of complex spaces and encoded memory and planning elicited by our task.

Sentencing of Sex Offenders in Washington State
Hannah Schwendeman, Senior, Anthropology, Law, Societies, & Justice
UW Honors Program
Mentor: Katherine Beckett, Law, Societies & Justice and Sociology

In the 1990’s, Washington State led the nation in adopting unprecedented punitive legislation, which fundamentally altered the punishment of sex offenses. Due to this history, certain subsets of the sex offense population have indeterminate sentences and could potentially be held for life; this system exists in direct contrast to the overall sentencing system in Washington State, which mandates fixed sentences for all other crimes. The motivations and effects of this divergent sentencing standard have not been fully addressed and deserve careful scrutiny. Furthermore, these policies hold significant consequences for the overall prison population as twenty percent of those currently incarcerated in Washington State were convicted for sex crimes. This project will investigate the legislative and sentencing changes regarding Washington State sex offenses in the last forty years. Through evaluations of historic Washington State criminal codes, I document how legislation regarding sex offenses has intensified since the 1980’s, specifically examining rape crimes. Utilizing Washington State sentencing data, I will demonstrate recent trends in the sentencing of sex offenses and evaluate how the sentences for this population have changed between 1986 and 2013. I will also interview local elected officials, affiliates, and attorneys involved in the sentencing of sex offenses to gain a qualitative perspective on this issue. In evaluating the human consequences of this sentencing model, I argue that we need to reevaluate the structure, motivation, and treatment of sex offenses in Washington State today.