

## **Learning How to Sustain Native Nations: Emerging Practice in Environmental Justice, Health, Language and Cultural Resources**

Moderator – Octaviana V. Trujillo (Yaqui), PhD, Northern Arizona University

Heather Eastman, Austin Chico, Krystal Bergen, Micoleen Yazzie, Antoinette Pogue

The applied Indigenous studies (AIS) program at Northern Arizona University (NAU) focuses on Native Nation building and leadership in Indian Country. The department offers a Bachelor of Arts or Science, as well as minors in Native American studies, applied Indigenous studies and Indigenous health studies. The goal of the department is to prepare its students for practical application of their knowledge of Indigenous history and culture, policy, and 21st century challenges, in the United States and globally. In addition, students are required to complete an internship during their time in the program that provides them with experience in their area of interest. The 2013 senior class of the applied Indigenous studies department, working with Dr. Octaviana V. Trujillo, developed research projects in the Fall and Spring semesters that focused on their future career or a topic that resonated with them in Indian Country. The students submitted their papers to the Western Social Science Association Conference and were invited to present their findings on a panel. The academic department, college and research office at NAU supported their travel to the conference.

### **Culture and the Re-Building of Native Nations**

Heather Eastman graduated with degrees in applied Indigenous studies and anthropology, with a minor in religious studies. Heather researched the role of culture in the re-building of Native Nations. She began by introducing the importance of culture in this process, due to historical right, identity, and the exercising of complete self-determination and sovereignty. Historical federal Indian policy, from the removal/reservation period to termination, served to eliminate Indigenous Peoples culture and nationhood. However in the age of self-determination, regaining complete sovereignty involves the ability to include culture in community services, representation regarding cultural issues in state and federal governments, as well as institutions, consistent repatriation efforts, protection and respect of sacred sites, the development of appropriate cultural policy, and the option of including traditional governance in the 21st century. Heather used the Diné Policy Institute work on traditional Navajo governance, the Zuni A:shiwí A:wán Museum and Heritage Center and the Partnership for Native American Cancer Prevention as examples of the connection between sovereignty and culture and the re-building process for Native Nations. Heather is continuing her studies at NAU in the archaeology masters program and plans to focus on cultural policy in state, federal and tribal government, indigenous archaeology, repatriation and cultural competency in Indian Country.

### **Language Revitalization on the Tohono O'odham Nation**

Austin Chico is Tohono O'odham and a graduate of the applied Indigenous studies and his paper presentation discussed indigenous language revitalization, with particular focus on the Tohono O'odham Nation. Austin began by discussing the status of Native American languages in the United States, and the urgent need for revitalization. He provided a history of national and state level

legislation and programs which have positively contributed to efforts to preserve Native languages, since the self-determination era of federal Indian law and policy. Austin also discussed the various efforts of the Tohono O'odham Nation to support and teach their language. Unfortunately, due to the focus on other tribal issues, language revitalization has primarily become a grass roots phenomenon. During his winter internship on the Tohono O'odham Nation, Austin participated in the development of a summer language immersion program for the tribe, as well as teacher certification and language program models. Austin plans to continue this work in his community and hopes to use the immersion model as a method for revitalizing the Tohono O'odham language.

### **Silent Death: Abandoned Uranium Mining in Cameron, AZ**

Krystal Bergan is Navajo and graduated from NAU with degrees in applied Indigenous studies and criminal justice. Krystal researched the threat of abandoned uranium mines in her home community of Cameron, Arizona. She began by explaining the history of the uranium boom in Indian Country after WWII. The United States Energy Department and the Kerr McGee Company were the major players in the extraction of uranium from the Navajo Nation. However, they did not inform the miners of the severe health risk associated with uranium extraction. Unfortunately, sustainable and healthy disposal practices were not followed and there are multitudes of abandoned and contaminated wells and mines. For her internship, Krystal worked with Jani Ingram, a professor of chemistry at NAU and Tommy Rock, a graduate student at NAU. Tommy's thesis also examines uranium mining on the Navajo Nation, and he has produced useful maps of contamination areas for the community and further research. Dr. Ingram is working on findings solutions to cancer disparities among Navajo, and uranium contamination awareness. Krystal's work with them consisted of water and sheep testing to determine levels and areas of contamination in her hometown. Krystal ended her presentation with a discussion of how individuals can help raise awareness and funding for clean up. She plans to continue to engage and educate her community and all residents of the Navajo Nation about the dangers of uranium mining in the past and present.

### **Radon: Protect Your Home, Your Health and Walk in Beauty**

Micoleen Yazzie is Navajo and graduated from NAU with degrees in applied indigenous studies and biomedical science. Micoleen originally began researching cancer education for Diné youth, however, her internship with the Institute for Tribal Environmental Professionals lead her to examine the effects of radon on the Navajo Nation. Radon is rarely discussed and little known radioactive gas that is invisible and emits no discernible taste or smell. It is an organic product, which resides in soil, rock and water, and is a decay product of uranium. Levels of radon for the Navajo Nation may be linked to the uranium boom that happened after WWII until the 1980's. It is a major cause of lung cancer in the United States. Though it is naturally occurring, the gas can accumulate in closed spaces, as well as be transmitted through the use of certain construction materials. Inhalation of this gas can cause cancer, however poisoning does not display any clear symptoms. According the Environmental Protection Agency levels higher than 4 pico curies per liter of air are dangerous. There are two types of tests for radon, one that takes 2-90 days and a longer but more accurate test. Micoleen tested 13 households on the Navajo reservation for radon, using the shorter method. She only found one house that had a level

slightly higher than the EPA standard. Micoleen participated in the Discover Program at University of Arizona during the summer in health disparity research and science that can benefit indigenous communities.

### **Health Disparities in Need of Cultural Awareness and Rebuilding for the Wind River Reservation**

Antoinette Pogue researched health disparities and cultural awareness for the Wind River Reservation in Wyoming. Antoinette is Eastern Shoshone, Northern Arapahoe and Navajo and will graduate in Fall of 2013 from the applied indigenous studies program, with an additional indigenous health studies minor. Antoinette's research was also informed by her personal experience, as she saw the separation between the two tribes living on one reservation, as well as the health disparities apparent in her own family and friends. The "silent issues" for the Wind River Reservation community are diabetes, homicide, suicide, accidental death and methamphetamine addiction. Furthermore, it has been difficult to remedy problems on the reservation due to tension between the Northern Arapahoe and Eastern Shoshone. Antoinette observed that health is related to various social institutions, including culture and social tension and therefore these two seemingly separate issues are interconnected. She hopes to help create strategic plans to revitalize culture, language and communication for both tribes on the reservation, as well improve overall wellness for her community.