



Joseph & nephew cooling off back home on the Hopi Reservation (Courtesy by Carrie Joseph).

Carrie Nuva Joseph, Hopi Hometown: Moenkopi, Arizona

Interviewed by Gilbert L. Rivera Jr.

Major: Soil, Water, & Environmental Science (SWES)

Minor: Public Health

Arizona Water Policy Certificate

Joseph was born and raised on the Hopi reservation and in the neighboring community of Tuba City, Arizona. As an active member in school and sports activities, she maintained traditional and cultural practices of her village community that revolves around the Hopi cyclic calendar. She gives credit to her parents and grandparents for instilling the cultural values of respect, reciprocity, and honesty growing up. She also credits her daughter, Kara, as a main driver for her to persevere in her education. Carrie deeply feels that it is part of her responsibility to encourage and assist with the protection of her daughter's generation and the many that will follow.

Q: What made you go into SWES?

The upbringing in my home community, the intimate connection that we have to the environment, and the threats that I saw to our life way is a large reason why I chose to go into environmental science. As Hopi, as well as all other tribal communities we know that everything is connected, our water resources, soils, climate, wind patterns, human activity, etc. Therefore, I needed a program that was not so concrete but interdisciplinary and the Soil, Water, Environmental Science Department was able to offer that to me. They also had programs around mining and remediation, both areas which were of interest to me because of the local mining challenges in my community from uranium and coal.

Q: How will your work affect your community?

My dissertation work will add to the answers needed to maintain the legacy of uranium and associat-

ed elements of concern at inactive uranium mill sites, managed by the Department of Energy. My site selection was based on the proximity to tribal communities, all located in the western United States. One of the seven sites is located 7 miles upstream from my village community of Moenkopi. I hope to add to the discussions of how disposal cells will be maintained appropriately so that the contaminant plume below-ground does not migrate farther than source zone areas. Much of that lies in understanding the local environmental conditions; the climate, the soils, the vegetation, geology, the hydrology. In addition, because there is little to no research that I found concerning tribal communities located near these sites, except for a couple, I will be completing a risk perception study this summer in my village community to gather possible needs and inform policy at the tribal and agency level.

Q: What does it mean to you to give back to your community?

Giving back to my community means being able to add to important discussions that give unique tribal perspectives; to be an advocate for tribal communities. Especially considering our history where tribes have often been left out of conversations regarding our future.

Q: Future plans upon graduating?

Honestly, I can't say for certain where I will end up when I finish my program. I want to stay close to home so I am able to maintain my responsibilities to my family and my Hopi community. I can definitely say my heart lies with serving and advocating for our tribal communities, however I don't think there is ample opportunity to utilize my full capabilities if I return home full-time. Today, there is definitely ways to give back to your community without necessarily having to live at the place you call "home."

For example, with the tribally relevant research that you pursue in higher education whether it be in your grad program, as a post-doc, or as a faculty member at a university. I could also teach at the collegiate level or work for a government agency centered around tribal environmental affairs. Sometimes I ponder the thought of going into environmental law, but then again I want to start my career sooner than later.



Joseph looking out over Moenkopi, Arizona (Courtesy of Carrie Joseph)

A message to Native youth:

In general, I would say to develop good habits, from wake up time to what you eat, to overall wellness. If you want to contribute effectively, you have to be well overall, so take care of yourselves. It's so easy to stray from this when it gets busy, but if you start early it will be easier, so develop those habits. When you get out into the real world it is okay to be uncomfortable, you will need to get comfortable with being uncomfortable, and soon those situations will be easy for you to manage. Maintain a connection with your home community – spiritual wellness is important. Find a mentor. Apply for internships and scholarships. Most importantly, seek help when you need it. It can be so easy to get discouraged, but asking for help from someone who is willing can make a world of difference. We do not achieve success on our own.

University Achievements

- UA/Sloan Indigenous Graduate Scholar
- 2015 Outstanding Graduate Student Award from UA Native American Student Affairs
- Active member of AISES (V.P. 14-15')
- Associated Students of the University of Arizona (ASUA) award for Outstanding Sustainability/Environmental Program

Yellowhair continued from page 18...

...went on to graduate school and got their master's degree. Here at the UA, I've been mentoring ever since I arrived. I've had several students – one went to medical school at Georgetown and she's now doing her residency here at the UA. I have another student who's at the University of North Dakota in his PhD program and other students have gone on to get their doctorate and master's degrees as well.

Q: What advice do you have for Native American youth?

It's very challenging but as long as you have that tenacity, persistence, and determination it can be done. Some days it feels like you're not doing anything but other days you have people that show up and give you inspiration to continue. For instance, I used to speak at my high school back home in Kayenta – I would explain everything that I'm doing and, sometimes, you don't know if the students are listening or not but fast forward five and a half years later, I was at a function that had students from both NAU and UA and one of the students came up to me, he shook my hand, and said "I just wanted to say thank you because I was one of the students from your class that you talked to in high school – now I'm graduating and going to my master's program." It's just like, whoa! You always find something – I guess my advice is to continue and stick it out even though it can be very challenging and very difficult because it can also be very rewarding.



Yellowhair preping the fume hood for her research (Photograph by Gilbert Lujan Rivera Jr.).

Q: What are your goals – what do you hope to accomplish?

I would like to get a tenure track position and continue the research that I'm working on, continue to get funding and bring in students and get my own lab – a lab of my own.