

Navajo Nation teachers mine uranium for lesson plans

By Cindy Yurth
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FLAGSTAFF — The history of uranium mining on the Navajo Nation is not a pretty story. But it makes a great topic for a school curriculum.

On Nov. 1, 25 teachers from the Navajo Nation gathered in Flagstaff to learn a bit about the yellow ore that changed the world. They heard from a Diné biologist who discovered a link between ingested uranium and abnormal uterine cell growth in lab rats, a breast cancer survivor-turned-activist, a renowned Navajo historian, and a couple of ordinary teachers like themselves who have come up with interesting lesson plans based around the element.

Then they went out in the field with two men from the Navajo Nation Abandoned Mines Program and got to hear a Geiger counter clicking almost off the scale on an abandoned tailings pile in Cameron Chapter.

For most, it was an eye-opener.

“All these things are just lying around the reservation, and nobody even thinks about it,” observed one participant.

Michael Welsh, the University of Northern Colorado history professor who founded the Middle Ground Project three years ago, wants the teachers to do more than worry about all the abandoned uranium mines dotting the Navajo Nation.

He wants them to think about how episodes in Navajo history — this year it's uranium mining, last year it was the Long Walk and the year before it was the struggle for water rights — intersect with American history.

You can't talk about uranium, for example, without talking about the Cold War and the arms race.

“That's where we got the name ‘Middle Ground,’” Welsh explained. “It's the middle ground between Navajo history and American history. The places where they intersect, the places where they diverge.”

The Middle Ground Project is one of only two projects funded nationwide by grants from the Presidential Academy in American History and Civics Education to improve the quality of history and civics education in underserved areas.

Welsh got a \$2 million grant to use over five years. His original goal was to offer high-quality professional development to history and civics teachers on the Navajo Nation, but soon other teachers wanted to be included.

Welsh could have locked the doors, but instead he was thrilled.

“The topics we were looking at are topics that cut across all disciplines,” he said. “Why not have a math teacher, a science teacher or a Navajo language teacher also teaching history?”

At the uranium session at Northern Arizona University, for example, Kirtland Central High School math teacher Katie Gilbert demonstrated a mathematical equation for radioactive decay, and Rough Rock Middle School Navajo culture teacher Leroy Morgan introduced a traditional Navajo story in which the Diné were to choose between two yellow substances, uranium (which they knew as “leetso” long before Anglos came prospecting for it) and corn pollen.

Welsh said he chose the Navajo Nation for his project because, while working on his doctorate at the University of New Mexico, he had taught history classes for elementary school teachers on Navajo and was struck by the obstacles they faced and the lack of culturally relevant resources.

“Talk about No Child Left Behind,” he said, “Here was a culture being left behind.”

Navajo history and civics teachers, he said, face a double challenge.

“They have two histories to teach, two governments,” he explained. “It struck me that to make them both relevant, you have to look at the relationship between them.”

That approach unearths a rich vein of historical and current issues for teachers and students to process together.

In its third of five years, the Middle Ground Project seems to be working. Assessments indicate the teachers are formulating the material into lesson plans that are engaging the students.

Middle Ground, admits Welsh, is still a work in progress, punctuated by what he calls “Homer Simpson moments.”

“Every so often we go, ‘Doh!’ Why didn’t we think of that before?” he said.

An advisory board of Diné scholars, including Northern Arizona University history professor Jennifer Denetdale, keeps him on track.

At first, said Denetdale, she was reluctant to become involved with Middle Ground. “If you’ve read my book (‘Reclaiming Diné History: The Legacies of Navajo Chief Manuelito and Juanita’) you know my feelings about white people interpreting Native history,” Denetdale said. “But Michael was making a concerted effort to use Navajo sources whenever possible.”

At the November 1 seminar, for example, all the presenters save one — Kirtland Central High School history teacher R.J. Macsalka — were Navajo.

“It’s a wonderful program,” Denetdale said. “Michael has put an amazing amount of energy into this. What’s important to me as a historian is to create history lessons that foster critical thinking in students, and that’s exactly what we’re doing here.”

The teachers seemed to enjoy the seminar, and some were already thinking about lesson plans.

Several said that, when it came to uranium, they had some first-hand experiences they could share with their students. A fifth-grade teacher who had spent a lot of time in the Crownpoint area, where decades of uranium mining and milling took place, had had a cantaloupe-sized tumor removed from her ovary.

“I wouldn’t tell them the uranium caused it, because I don’t know,” she said. “But I could tell them about the research that’s been done, and let them draw their own conclusions.”

Later, Welsh will meet the teachers again in Sanders and Kayenta to monitor their progress on transferring what they learned to the classroom, and next summer, the teachers will meet in Denver to show off their lesson plans.

If the teachers are impressed with the program, Welsh is equally impressed with the teachers.

“There is a lot of talent on the Navajo Nation,” he said, “and even some genius. When you think about it, these teachers don’t have to be on the reservation. Teachers can get a job anywhere. These are the ones who made a conscious decision to come back because they care about Navajo children.”

Next year, a new group of teachers will assemble on a different topic: the

ways in which Navajos have been assimilated into mainstream American society.

Funding cutbacks will probably mean the program will be offered to fewer teachers, but some of the teaching materials from all the units are available online in a “virtual library.”

“We’ve had teachers who were not involved in the program call us with specific requests on teaching a certain topic, and we’ve tried to support them as much as we can,” Welsh said.

There are also DVD documentaries of each year’s project available.

Information:
www.unco.edu/middleground