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FEATURED

TOP STORY

Bisbee High senior math students dive into Mimbres history with help of creative teacher

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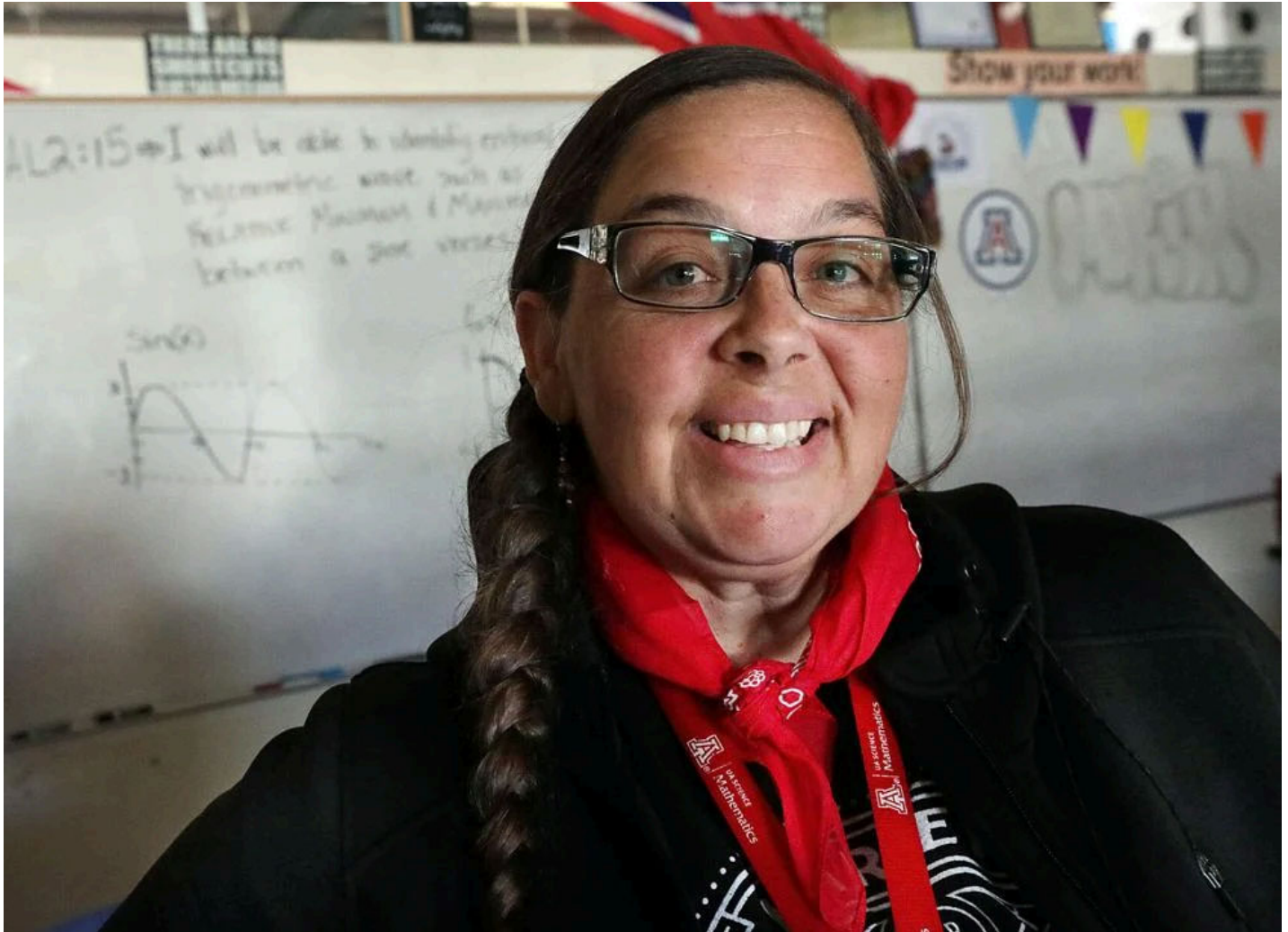
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Devany Olmstead and Edgardo Gamez, Jr. share the black on white pottery project they each made in their Statistics class at Bisbee High School. The students were learning about one of the funerary practices of the Mimbres Nation. They made special bowls to accompany the dead to the next plain.

Submitted

BISBEE – Making Bisbee High School seniors' math classes interesting to the point of even being fun, teacher Blais Cross added history and art. She says it's all thanks to her work with the University of Arizona anthropology doctoral student Rebecca Harkness.



Bisbee High School statistics class teacher Blais Cross in her classroom last week. Cross was named Cochise County's Special Projects Teacher of the Year last week.

MARK LEVY HERALD/REVIEW

Harkness researched the Mimbres people, a distinct group that lived from 700 AD to 1150 AD in southwestern New Mexico, southeastern Arizona and down into modern-day Mexico. The Mimbres people moved out into other territories after some sort of upheaval. They blended with other indigenous tribes and lived among the Pueblos of Zuni, Acoma, Hopi, as well as likely other Indigenous communities, including those in Mexico.

During the Math Circle training, held on Mar. 2 at the Bisbee Science Lab, Harkness talked about her research and answered students' questions, said Cross. The students were fascinated with the Mimbres culture.

“She shared her research about the Mimbres pottery digs she participated in at five different dig sites in New Mexico. We also heard from Angela Marquez, an authentic contributor from the Dine Nation, who spoke about the importance of sharing cultural diversity experiences for math students,” explained Cross.

Harkness also talked about the Mimbres pottery which in the early days was predominantly black and white ceremonial bowls with geometric and wildlife designs drawn in charcoal on the inside and various linear markings on the exterior.

After a conference with a U of A Borderlands Education, Cross decided to “bring the lesson back to my statistics class at BHS and students had access to Harkness’ original data. They were required to clean the data and analyze it using DataClassroom, which is an online tool that utilizes Python.”

The students also created their own black and white bowls and depicted the designs of the Mimbres as a class project. They also made “kill bowls” which had a hole in the center of the bottom for funerary purposes. Those bowls were placed over the head of the dead at the time of burial and the hole was a gateway for the soul to pass through as it entered the spirit world.

They even dug a mock grave at the high school to experience what a burial was all about, thanks to a model skeleton.

The students thoroughly enjoyed the opportunity to embrace this old culture and it made an impact on them as to how mathematics, archeology and art was worked into the day to day life of the Mimbres.



Leevon Sears, Edgardo Gamez Jr., and Anthony Molina are seen recreating a burial ritual tradition of Ancient Mimbres Clans by putting black on white Mimbres inspired pottery projects near a skeleton borrowed from the science department.

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Students share what they learned

What role did the Mimbres culture play in shaping the artistic and spiritual culture?

Nain Quiroz: "Their art showed their artisticness in geometric art or naturalistic art. Spiritually wise during the burial ritual they would have a bowl covering the face of the deceased that represented that person, whether hunting, fishing or so on. These bowls would contain a hole in the center that was called a kill hole to help release their soul into the afterlife."

How does Mimbres pottery relate to statistics?

Filiberto Carrizozza: "Mimbres pottery is like when you have a bunch of small pieces of a puzzle, and each piece doesn't make much sense on its own. But when you put them all together, they create a big picture. Similarly, in statistics, when you look at small groups of data, they might seem one way, but when you look at the whole picture, it can tell a different story."

How did you make the bowls?

Christian Romo: "The process for us started off with a Styrofoam bowl that we covered with plaster and let it dry. Then we sanded the bowls to make them smooth before painting them with charcoal."

Kiki Munoz: "The hardest part of making the bowls by using the powder and water to make a bowl and trying to make sure it didn't crack easily or fall and cooking it to make it look like the picture."

Where did you get Mimbres data from?

Ciana Rivera: "We got the data from Rebecca Harkness and went through it and sorted it out."

If there was one thing you remember the most about this lesson what would it be?

Yordan Rosas Del Cid: "That the people would actually bury their family members in their own homes."

What is a fun fact you've learned about the Mimbres?

Airam Romero: "A fun fact is that the people in the Mimbres region became increasingly committed to agriculture and regional population levels grew. The inhabitants of the Mimbres region farmed the floodplain along the Mimbres River and other major drainage ways as well as the upland hill slopes."

What did you like about learning the Mimbres culture?

Marisol Savedra: "I know the Mimbres are an older history and I really enjoyed making the bowls and getting to find out information about them and how people used to use the symbols. Overall I enjoy learning about older things and this one is no different."

About Blais Cross, Bisbee High graduate

Cross has a master's degree and over 17 years in secondary education. She is also a current participant of the Noyce Borderlands Master STEM Teacher Fellowship sponsored by the U of A.

“One of my professional goals this year is to empower my students to embrace a growth mindset in mathematics while providing a safe place for exploration, collaboration and reflection. I believe as an educator and a role model, it is my responsibility to create a stimulating structured learning environment where students are challenged to establish a growth mindset.

“Supported research suggests that when students adopt growth mindsets, their academic achievement increases, and they gain a greater sense of free will. This excites me, because students, then remain in a constant state of evolution, and are able to develop problem solving strategies, critical thinking skills, and intrinsic motivation.”

Shar Porier