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What's next for Kennewick Man, now that DNA says he's Native American?

By Sandi Doughton
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First came the science, with researchers explaining how they analyzed Kennewick Man's DNA and concluded that the 9,000-year-old skeleton from Eastern Washington is undoubtedly Native American.

Then came the emotions, as members of Northwest tribes spoke from the heart about how it feels to be vindicated after a nearly 20-year battle to claim the remains of The Ancient One.

"Today, science has established concrete proof, a concrete truth, and this truth cannot be disputed," Armand Minthorn, of the Confederated Tribes of the Umatilla Indian Reservation said at a briefing Thursday at the Burke Museum of Natural History and Culture, where the bones are stored.

Anthony Johnson, chairman of the Nez Perce Tribe, told the audience that he brought his son to bear witness to the historic day. "All we ask now is that what's right be done," he said.

To the tribes, that means the federal government should relinquish custody of the bones and allow them to be reburied.

"Scientists may not understand it," Johnson said, "but it's very important for our way of life … that we put our ancestor back in the ground."

But while the analysis published Thursday in the journal Nature brings the tribes closer than they have ever been to that goal, the outcome is still not guaranteed.

The U.S. Army Corps of Engineers has control over what is perhaps the most controversial set of ancient remains in North America — simply because the bones were discovered on its property in 1996 by students wading in the Columbia River near the town of Kennewick.

The corps' early decision to hand the bones over to local tribes triggered a lawsuit from a team of scientists, headed by Doug Owsley of the Smithsonian Institution, who argued that such a rare find should be preserved for study — and that none of the five tribes who jointly sought repatriation could demonstrate kinship across such a vast expanse of time.

The scientists won that battle. Now the corps is taking another look in light of the DNA analysis, said regional archaeologist Gail Celmer. “It’s a very important piece of the information we need,” she said. “But it’s not going to be the be all, end all … of our review process.”

The Native American Graves Protection and Repatriation Act requires tribes to prove “cultural affiliation” before gaining custody of ancient remains, she explained. That’s a high bar that requires multiple lines of evidence.

And even though few of the scientists who originally sued are still active, Celmer said she expects a decision to give the bones to the tribes will be challenged. “That’s why we need to be really careful,” she said.

This time around, though, Celmer estimated that the process will take “months, instead of years.”

The details of the genetic studies, first reported in January by The Seattle Times based on public records requests, will be key.

The work was led by Danish paleogeneticist Eske Willerslev, whose lab at the University of Copenhagen has sequenced DNA from scores of ancient remains, including a 130,000-year-old Neanderthal toe bone.

Earlier attempts to extract DNA from Kennewick Man failed, but the technology has advanced dramatically since then.

“It’s the difference between a horse and a buggy and a rocket to the moon,” said co-author David Meltzer, of Southern Methodist University in Dallas.

Willerslev and his colleague Morten Rasmussen were able to squeeze enough material for a complete genetic sequence from 200 milligrams of finger bone — less than one-hundredth of an ounce. They also used new methods to “stitch” together tiny fragments of highly degraded DNA and weed out modern genetic material contaminating the sample.

They compared the sequence to those of people from around the world. The closest match was to Native Americans.

“I think we can conclude, very clearly, that he is most closely related to contemporary Native Americans,” Willerslev said Wednesday in a phone briefing for journalists.

The genetic library used for comparison included samples from Native Americans in Canada and Central and South America, but none from the United States, where distrust of science runs high among many tribes.

After meeting Willerslev and visiting his lab, several members of the Confederated Tribes of the Colville Reservation agreed to have their DNA sequenced. “Because of the way science has treated our people in the past, it was a tough decision,” said Jim Boyd, chairman of the tribal council.

The results don’t prove that the Colvilles are directly descended from Kennewick Man, but they do a show a strong connection, Willerslev said. “There’s no doubt that the Colville are more closely related to Kennewick Man than are other Native American groups.”

The details of the relationship are still unclear, added co-author Rasmus Nielsen, of the University of California, Berkeley. There might be a direct lineage, but it's also possible that the two lineages diverged 600 to 700 years ago.

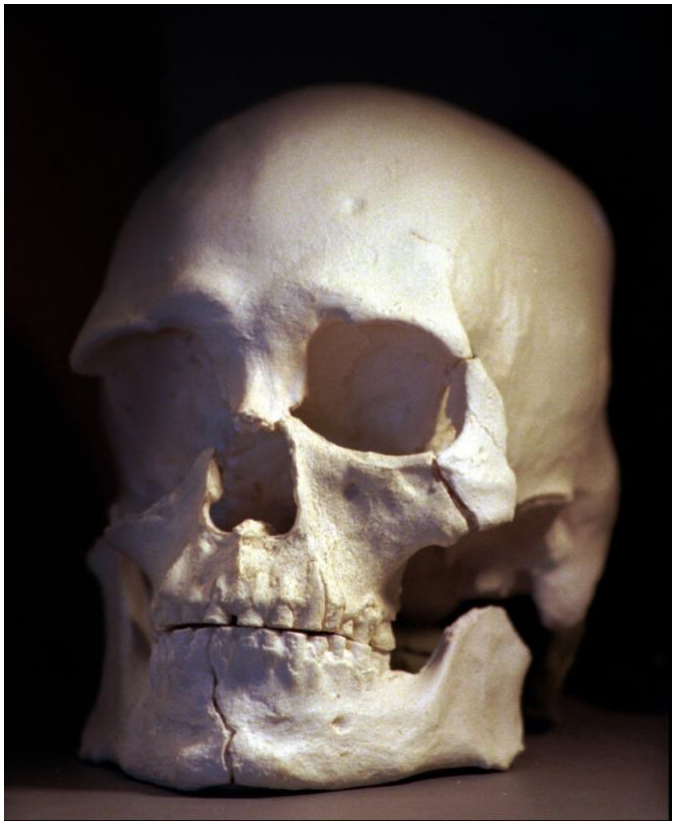
Cleone Hawkinson, of Friends of America's Past — which was organized to fight for scientific access to Kennewick Man and other ancient remains — said in an email that the results are too preliminary to set off a rush to reburial.

"When politics guides or limits science … we are doing future generations a disservice," she wrote.

Owsley also said the new results don't connect the skeleton clearly enough to the Colville group to justify handing it over under federal law.

Other data show Kennewick Man was "a traveler … His people were coming from somewhere else. We don't know who those people (were), we don't know what their culture was," Owsley said.

Archaeologist Jim Chatters, the first scientist to examine the bones, said he's simply relieved to see the saga coming to an end.



This July 24, 1997 file photo shows a plastic casting of the skull from the bones known as Kennewick Man in Richland, Wash. The ancient skeleton, found nearly 20 years ago in a river in Washington, is related to Native Americans, says a DNA study published Thursday, June 18, 2015. The finding could help resolve a long-running dispute over its ancestry and custody.
(Elaine Thompson / The Associated Press, 1997)

Chatters, of Bothell, sparked controversy when he used the word "Caucasoid" to describe the shape of the skull, which seemed very unlike those of modern Native Americans. A facial reconstruction that showed a hawk-nosed man who resembled the Star Trek character Jean Lu Picard fanned the flames.

Based on measurements of the skull, Owsley has long argued that Kennewick Man is not Native American, but is more likely linked to the Ainu, the indigenous inhabitants of Japan, or to the peoples of Polynesia. Other researchers made the claim that he might be European, though the theory that migrants from across the Atlantic helped populate North America has been largely debunked.

Kennewick Man's DNA shows he was no more closely related to modern Polynesians or descendants of the Ainu than to any other population around the world, Willerslev said.

Chatters long ago changed his mind about the skeleton's ancestry after working with remains of other so-called paleo-Americans from Mexico that look different but are clearly linked genetically to modern Native Americans.

Though many in the general public still harbor the impression that Kennewick Man has European roots, the fact that his genetics are Native American is not surprising to Chatters or other experts in the field.

"It makes so much sense," said Brian Kemp, of Washington State University.

But the possible ancestral link with the Colville tribe, much of which is based on DNA from only two individuals, should be considered very preliminary, cautioned James Dixon, of the University of New Mexico.

"When you get down to individual groups of people and defining direct lineages to them genetically, with this small sample size, it's very difficult," he said.

Also, the Kennewick results have yet to be compared to any other tribes in Washington and Oregon, because no DNA has been collected from them.

"Within the Americas, it's important to emphasize that we will never be able to say who is the closest living relative of Kennewick Man," Willerslev said. "To do that would demand that all Native Americans be sequenced, which of course, is not possible."

Willerslev worked closely with Northwest tribes to explain the research and keep them updated on the results.

Other researchers have also been able to collaborate with Native American and First Nations people on the study of ancient remains.

With permission and cooperation from Alaskan tribes, Dixon and Kemp studied 10,300-year-old human bones from an island off Ketchikan. After the work, tribal members reinterred the bones.

No scientist likes to eliminate opportunities for future research.

"What techniques will we have 10 years from now, or 100 years from now?" Kemp asked. "I wish things of such antiquity would always be around for the whole world to appreciate, but we also have to respect the law and we have to respect people's feeling about their ancestors."

For Northwest tribes, the value of future scientific study pales against the respect they feel the Ancient One deserves.

They've even picked out his final resting place, though they won't reveal it for fear of vandalism, Minthorn said.

"These remains need to be treated in a sacred manner," he said. "They are sacred to us."