

Genome of the Ancient One (a.k.a. Kennewick Man)

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A little over a year ago the complete genome sequence of a Clovis individual, the 12,500 Anzick child, was published (Rasmussen et al. 2014). His genome gave us a fascinating glimpse of ancient Native American genetic diversity, and new insights into the early peopling of the Americas. At the time, however, I was critical about media coverage. Several press reports chose to find controversy in a decidedly non-controversial story by giving undue weight to problematic “alternative” explanations of Native American origins, including the Solutrean Hypothesis, and other “European contributions” to Native American ancestry.

The press did a much better job this summer in discussing the publication of the ancient American genome from the 8,500-year-old burial from Washington popularly called “Kennewick Man,” or “The Ancient One.” Analyses of Kennewick Man’s genome showed that he was closely related to other Native Americans, both ancient and contemporary, and shared genetic ancestry with Northern Native Americans, including the Colville Tribe (the extent to which he is related to other North American tribes is yet unknown as we have very little genetic data from Native Americans in the United States). The DNA findings refute older hypotheses that Kennewick Man was variously of European, Ainu, or South Asian or Polynesian affiliation. As with Anzick and every other ancient American individual that have been sequenced, the genetic evidence from Kennewick Man is unequivocal: he is closely related to contemporary Native Americans (Rasmussen et al. 2015).

The press’ treatment of the results from the Kennewick Man genome paper was considerably

better than that of the Anzick genome paper for several reasons. First, there was very little talk about the long-discredited “Solutrean hypothesis” (which, if it weren’t already in its coffin, would have taken a further hit with the revelation that Kennewick Man’s genome showed absolutely no evidence of ancient European admixture), and no emphasis on any “European connections” (which is good because there weren’t any!) (Raff and Bolnick 2015). Furthermore, several journalists provided careful, nuanced discussions of the long and contentious history of research and litigation surrounding Kennewick Man, which is critically important for understanding his significance to indigenous Americans (Meltzer 2015). An excellent example is the article written by Ewen Callaway for *Nature*, which went through the history of the controversy and also noted how the discipline has changed in recent years:

The genome of a famous 8,500-year-old North American skeleton, known as Kennewick Man, shows that he is closely related to Native American tribes that have for decades been seeking to bury his bones. The finding, reported today in *Nature*, seems likely to rekindle a legal dispute between the tribes and the researchers who want to keep studying the skeleton. Yet it comes at a time when many scientists—including those studying Kennewick Man—are trying to move past such controversies by inviting Native Americans to take part in their research.

In an article for the *New York Times*, “New DNA results show Kennewick Man was Native

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American,” Carl Zimmer not only discussed the science and the controversial history of the research in a thoughtful way, he also obtained perspectives from Native American community members and scholars [including Kim TallBear, an Associate Professor of Native Studies at the University of Alberta, who has written important critiques about genetic research with indigenous American populations (TallBear 2015)] to explain why Kennewick Man is so significant and why some Native American groups in North America are reluctant to participate in genetic research. He also interviewed me, giving me the opportunity to talk about efforts in American anthropological genetics to make the field more inclusive, such as the Summer Internship for Native Americans in Genomics program.

Several additional publications discussed the results in light of the discrepancy between Kennewick Man's ancestry determination by morphological analysis and genetics. His cranium (as well as those of other Paleoindians) has been classified as morphologically “Caucasoid,” which has been cited repeatedly to assert that contemporary Native Americans do not share genetic affinities with Kennewick Man. *Indian Country Today* discussed this in detail, as did Kristina Killgrove, a bioarchaeologist writing for *Forbes*. Dr. Killgrove quoted Deborah Bolnick (Associate Professor of Anthropology at the University of Texas) on this issue: “Just because Kennewick Man looked different than later and contemporary Native Americans does not mean that he was not related to them. Rather, other factors, such as adaptation or local environments or random changes over time, may have contributed to the physical differences between Kennewick Man and contemporary Native Americans.”

This is an important point from the study to emphasize, particularly because numerous archaeology enthusiasts on online forums have long

argued that Kennewick Man *must be* of European descent because of the way his skull looks.

I was pleased that the focus of the majority of news articles that I saw was not on giving credence to discredited ideas about Native American history, but rather on discussing the scientific, legal, and social implications of this work.

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