A NEW ROUTE INTO THE AMERICAS
For much of the last ice age, massive glaciers covered the northern part of the Americas. After the last glacial maximum, that ice started to melt, and by 13,000 years ago, an ice-free pathway opened through modern-day Canada that scientists know the Clovis people to have traveled. However, recent archeological and genetic evidence suggests that some groups of people migrated to the Americas before the last glacial maximum, when there was no ice-free corridor, suggesting that they may have traveled along the western coastline. If so, many of the artifacts and remains they left behind may be under water.

many ancient sites underwater, drowning the artifacts and other evidence that might have shed light on ancient peoples’ paths through Beringia and possibly down the West Coast of North America, where they would have had to travel if they entered the continent while glaciers still covered the more easterly routes thought to have been followed by the Clovis people.

Aside from the limited amount of physical evidence, one of the biggest challenges facing researchers seeking to revise the story of the peopling of the Americas, they say, is intellectual inertia. Eric Boëda, an archaeologist at University Paris Nanterre, told The Scientist in 2020 that there is “denialism” in the field, and that the long-standing belief that humans didn’t live in the Americas until 13,000 years ago causes people to discount older artifacts found there. Odess says that when the White Sands paper was published, some scientists rejected it because it didn’t fit their models. While it’s important to confirm the validity of new data, he says, “when you have data that doesn’t fit a model, you don’t change the data. You have to adjust the model.” Since the findings first came out, Odess adds, most experts he knows of have come to accept them as valid.

Another aspect of the challenge is that many different types of scientists approach the question of migration into the Americas differently, and they don’t always work together. Scientists “from archaeology, from chemistry, and from genetics are kind of all coming together and approaching this really interesting piece of history from these multiple angles. And naturally, you get different data sets from these different fields,” says Raff. “I would almost critique us geneticists for not steeping our work in the archaeological data as well as we should. I think that’s been a real problem.”

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—Jennifer Raff, University of Kansas

Another obstacle to an accurate telling of the peopling of the Americas is a tenuous relationship between the scientific establishment and the very populations central to the story. Researchers have historically failed to collaborate with Indigenous populations that could be affected by their work, breeding deep mistrust, experts agree. “Scientists have tended to kind of disregard their perspective on these things because they don’t see the ‘scientific proof,’” says Odess.

Many investigators who spoke with The Scientist agreed that conducting genetic analyses in an ethical way is both crucial and one of the biggest challenges they face. When human remains are found, tribes often want to leave them undisturbed or give them a traditional burial rather than allow DNA to be extracted for research. “Doing this work in the right way means developing long-term relationships with tribes and developing trust,” says Raff. “And that is difficult when so many times, again and again, their trust has been violated.”

References