A bead. A lead ball. Bison bones. Remains of cooking fires. More than 200 years after the Corps of Discovery set out to chart the vast new Louisiana Territory, these and similar artifacts are helping researchers identify some of the explorers’ campsites along the route. Specifically, they’re looking for places where the corps spent weeks or months, such as Fort Mandan, Fort Clatsop and the Lower Portage site where they prepared to carry their gear 18 miles around the Great Falls of Missouri in Montana.

For Boise State archaeologist Christopher Hill, finding those sites will add another dimension to the vast scientific record Meriwether Lewis and William Clark left behind. How have river channels changed since Clark navigated and mapped them? What places show signs of erosion or burial? How and where were campsites organized?

“That information is potentially preserved in the archaeological evidence and will complement and add to the story of Lewis and Clark,” Hill says.

Hill is part of a team headed by Ken Karsmizki, a former colleague at Montana State University and a historical archaeologist now in charge of the Columbia Gorge Discovery Center in Oregon. The team is searching for physical evidence of the Lewis and Clark expedition; as the group’s geoarchaeologist, Hill looks to land formations for clues to the past. The team’s research, which spans more than a decade, was chronicled in a 2002 documentary for the Discovery Channel.

While rivers change course and forests burn, landmarks such as rock outcroppings, cliffs and mineral springs tend to be more stable, providing a way to track specific sites. To find the likely site of Fort Mandan in North Dakota, where Lewis and Clark spent the long, bitterly cold winter of 1804-05, Hill compared Clark’s detailed maps with the current landscape. By overlaying historical and current diagrams, he was able to estimate the fort’s most likely location.

Excavations in that area uncovered a layer of charred soil 4 to 6 feet beneath the surface, dated to around the time Fort Mandan burned to the ground. The group hopes that further excavation will uncover artifacts that can be tied to the explorers, such as remnants of the blacksmith shop where metal was fashioned in trade for corn.

“Archaeology is like looking for a needle in a haystack,” Hill says. “Except there may be several needles in several haystacks. It’s important to figure out which artifacts might be from the time of Lewis and Clark.”

This is especially true at the Lower Portage site, where about a dozen historic campfires have been found but only three lie in the formation common to the military in 1805.

Excavations near those sites have uncovered a wooden stake used for cooking and bison bones bearing the marks of iron tools, both dating to the early 1800s.

What they have yet to uncover is the buried cache of supplies the men chose to leave behind, or the iron boat frame buried at the nearby Upper Portage site.

At the end of the trail where a reproduction of Fort Clatsop was built in 1958 (and was recently destroyed by fire), Hill believes that Clark’s maps, known for their accuracy, place the fort’s actual site to the northwest. Although forests can change greatly over time, a nearby bluff adds weight to his premise.

Whatever the outcome, Clark’s maps have allowed Hill a unique glimpse at how the landscape has changed over two centuries and how cultures continue to have an impact on the world around them.