In Science, UO archaeologist Jon Erlandson discusses game-changing research on the first Americans

EUGENE, Ore. – (Nov. 3, 2017) – Questions about how, when and where humans first reached the Americas have guided Jon Erlandson’s research for more than three decades. An internationally recognized authority on the archaeology of seafaring and coastal cultures, he’s been at the forefront of a dramatic shift in thought surrounding the peopling of the Americas. That shift—and what it means for future research—is the subject of ‘Finding the First Americans,’ a perspective piece featured in the Nov. 3 issue of Science.

Coauthored by Erlandson, Tom Dillehay of Vanderbilt University, Richard Klein of Stanford University, and UO alumni Todd Braje (California State University at San Diego) and Torben Rick (Smithsonian Institution), the article reexamines the paradigm that the first Americans were big-game hunters who arrived around 13,500 years ago by way of an overland route from Siberia to Beringia. The hunters eventually headed south to the Great Plains via a narrow land corridor that opened as two vast Canadian ice sheets retreated.

This Clovis culture—named for a distinctive tool technology first uncovered at a site near Clovis, New Mexico—was for many decades regarded as the first to colonize the New World. But as the authors note, in the late 1980s the Clovis-first model began to erode when Tom Dillehay reported findings from Monte Verde on the southern coast of Chile, where he’d uncovered evidence of a human occupation dating to around 14,500 years ago—a thousand years before the appearance of Clovis people in North America.

“With Monte Verde, the Clovis-first model began to sink. Now it’s dead in the water,” Erlandson said.

The executive director at the UO Museum of Natural and Cultural History, Erlandson is known for his kelp highway hypothesis, which draws from his years of research at sites on California’s Channel Islands and elsewhere along the Pacific coast, and points to evidence that the first Americans traveled from northeast Asia following kelp-forest ecosystems around the Pacific Rim.

“Kelp forests from Japan to Baja California would have facilitated migration by seafaring people along a coastal route from Asia to the Americas well before an ice-free corridor opened in North America’s interior,” he said.

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Seafaring people were likely exploring and settling along major rivers with rich salmon runs, as well, which would have offered corridors deep into the North American interior. These waterways may have carried them to the expansive wetlands of the Northern Great Basin, a region that straddles southeastern Oregon, southern Idaho and northern Nevada.

Dennis Jenkins, a senior archaeologist at the Museum of Natural and Cultural History, helped put Oregon and the Northern Great Basin on the pre-Clovis map when in 2002 he uncovered 14,000-year-old human feces at Paisley Caves in south central Oregon. The dessicated specimens, known as coprolites, are still the oldest human remains in North America.

“Paisley filled an important gap in the coastal migration theory and made Oregon central to the study of the first Americans,” Erlandson said.

But even as scholars increasingly focus on coastal migration as the likely scenario for the peopling of the Americas, Erlandson and his coauthors note that the toppling of the long-held Clovis-first paradigm has created a vacuum—one that’s invited some extraordinary alternative claims, including those from a study published earlier this year in Nature that purports to have uncovered a 130,000-year-old human occupation at the Cerutti Mastodon Locality in southern California.

“The implications of a North American archaeological site of that age would be staggering,” said Erlandson, “as the claims are quite at odds with the archaeological, paleoecological, and genetic evidence to date.”

In addition to an overview of past and current ideas about the peopling of the Americas, the Science article offers perspective on key directions for future research.

“The main challenge we face in testing the kelp highway hypothesis is that much of the evidence of pre-Clovis coastal occupations would now be submerged by rising seas,” Erlandson said, “and the earlier such occupations may have occurred, the further off modern shores the evidence would now exist.”

What’s needed next, the authors note, is interdisciplinary field research focused on locating submerged archaeological sites.

“If the evidence exists, this is where we’re going to find it,” Erlandson said.

Erlandson is currently working on a $900,000 Bureau of Offshore Energy Management project that involves tribal partners, geologists, biologists, and archaeologists from multiple universities in an effort to map sections of the seafloor off the coasts of California and Oregon. The project involves reconstructing submerged landscapes using on-land archaeological sites as models.
“These Paleocoastal sites are often associated with geographic features like caves, springs, toolstone outcrops, and natural overlooks with strategic views. We’re looking for similar landforms underwater,” Erlandson said.

“It’s like looking for a needle in a haystack. We’re trying to make the needle bigger and the haystack smaller.”

About the Museum
The Museum of Natural and Cultural History enhances knowledge of Earth’s environments and cultures, inspiring stewardship of our collective past, present, and future. The museum is open Tuesday through Sunday from 11:00 a.m. to 5:00 p.m. and is located at 1680 E. 15th Ave., near Hayward Field. Admission is $5 for adults, $3 for youths and seniors, and $10 for families (two adults and up to four youths). Reduced admission is available for visitors presenting Electronic Benefit Transfer (EBT) cards. Admission is free to members and UO ID card holders. For general information call 541-346-3024.

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