RESOURCES

EAA INTERVIEW

The Bering Land Bridge Theory
An EAA *Interview with Professor Morgan Smith*

Morgan Smith is an Assistant Professor in Anthropology at the University of Tennessee at Chattanooga. He received his PhD in Anthropology from Texas A&M University, where he studied in the Center for the Study of the First Americans. Prior to this, he worked for the Southeast Archaeological Center of the National Park Service in the section 106 compliance division. He has over a decade of experience in underwater and terrestrial archaeology. He has directed multiple full-scale geoarchaeological excavations of underwater prehistoric sites, as well as Phase I and Phase II surveys of terrestrial and submerged lands throughout North America. His contributions to underwater archaeology include efforts to develop methods and models to more accurately and reliably locate underwater prehistoric sites, with an emphasis on mobile forager societies. Smith has conducted archaeological and anthropological research throughout the Southeast United States, American West, and Central America.

In the following interview, Professor Smith discusses the Bering Land Bridge theory and its relevancy in world history, as well as other academic fields.

Lucien Ellington: *Middle and secondary school teachers, as well as college instructors, who read* EAA *will be generally familiar with anthropology and, as in some cases, be anthropologists.* EAA *readers who teach other disciplines, and virtually all students, will be unfamiliar with paleogeography, a subfield you utilize. Please briefly describe paleogeography as a research field and how you became interested in this work.*

Morgan Smith: I don't claim to be an expert specifically in paleogeography, but my work is inexorably tied to that field. I am an anthropologist, specializing in archaeology. I study past peoples through their material remains. However, the further back in time an archaeologist works, the more they must pay attention to paleogeography. Essentially, paleogeography as a field of study exists because the earth is wonderfully dynamic. Landmasses wax and wane as oceans rise and fall. Ecotones and biomes shift northward and southward as climate changes both globally and regionally. These shifts, from my perspective as an anthropologist, force changes in human behavior, driving human ingenuity and adaptation.

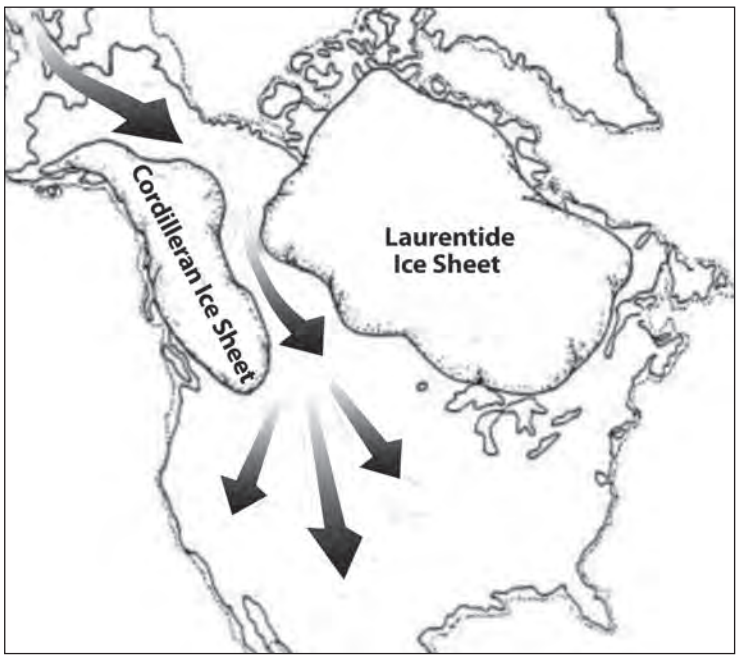
Humans, past and present, are forced to react to these changes in terms of what is gathered, what is hunted, and what technology is used to perform day-to-day activities. I became interested in understanding the environments in which precontact peoples lived in the Americas out of genuine curiosity and fascination. Think about this: for the last time in Earth's history, when the Americas were first peopled at the end of the last Ice Age (this timing is hotly debated and recent data has proposed people may have arrived in the Americas in excess of 20,000 years ago, but these sites are not uniformly accepted by First Americans scholars and I will instead use a conservative date of ~16,000 years ago), humans entered not only an undiscovered continent, but an undiscovered *hemisphere.* Seeing a glimpse of how these early people adapted through the archaeological record is enthralling and inspiring. My education in the field started in undergraduate anthropology studies at the University of West Florida. I then attended the anthropology program at Texas A&M University, studying in the Center for the Study of the First Americans, to specialize in the study of the Ice Age colonization of the Americas.

Lucien: *It is a safe assumption that* EAA *school and university survey instructors are aware at a rudimentary level of the Bering Land Bridge theory, almost always mentioned in passing, in 1-2 sentences, in early US and world history texts. Please provide readers, in your own words, a definition of the Bering Land Bridge theory that will enhance basic teacher and student knowledge and possibly pique further interest about the theory.*

Morgan: The Bering Land Bridge theory is the thought that the initial peopling of the Americas occurred when humans walked over a landmass, a landmass which is now inundated under the Bering Sea, that once connected the Asian and North American continents. This area is currently preserved as part of the Bering Land Bridge National Preserve. However, the Bering Land Bridge theory has come under fire recently, and many academics are not satisfied with using this theory alone to explain the initial peopling of the Americas. The discontent of this method can probably be boiled down to a more specific source of contention. That contention is closely related to the land bridge theory, but gets less media attention. The problem is that the Bering Land Bridge theory is contingent on another paleogeographic problem: the Ice-Free Corridor.

The Bering Land Bridge in a strict sense, by which I mean the physical landmass connecting the Russian Far East to Alaska, was never really a problem for the peopling of the Americas. The Bering Land Bridge landmass was passable from ~28,000 years ago until ~12,000 years ago. Even the most conservative archaeologists agree that humans occupied the Americas by the time the Bering Land Bridge was no longer passable, by which I mean inundated. The greater problem is the timing of the viability of the Ice-Free Corridor. Essentially, the Ice-Free Corridor is the paleogeographic gap between the Laurentide and Cordilleran Ice Sheets, which covered most of Canada during the last Ice Age. The timing and viability of the Ice-Free Corridor is vital: if the Ice-Free Corridor is not open, then basically the entry to North America via land is blocked by an immense expanse of ice and tundra. If humans were in North America and the Ice-Free Corridor was blocked, the only other route into the Americas that did not involve glissading (sliding) and traversing across inhospitable ice and tundra would have been the Pacific Northwest Coast. If the Ice-Free Corridor was viable, humans could ostensibly stroll through the gap between these ice sheets, presumably following fauna and flora into mainland North America.

Recent research indicates that the Ice-Free Corridor was open perhaps as early as ~15,000 years ago, with evidence of plant and animal



Simplified illustration of the Ice-Free Corridor between the Cordilleran and Laurentide ice sheets. Map by Willa Davis based on the original drawing on *ResearchGate* at https://tinyurl.com/8u8wb4yb.

communities becoming established in the corridor by ~12,600 years ago. This leads to the second problem of the Bering Land Bridge and Ice-Free Corridor concepts: archaeological sites exist in both North and South America that date to ~15,000 years ago or earlier. If humans were established in the Americas by the date the Ice-Free Corridor was only beginning to be viable, is the land bridge/corridor theory truly supported by the data? That is to say, if people could only have begun moving through the Ice-Free Corridor ~15,000 years ago AND we have archaeological sites in the Americas that date to ~15,000–14,000 years ago in areas such as Idaho, Oregon, Texas, Florida, and in the southern cone of South America in Chile, does it make sense that these people entered the Americas and then quickly populated the hemisphere?

Lucien: *In interview preparation, the first thing that surprised me was as early as 1590, Jesuit missionary and scholar Jose de Acosta authored a* Natural and Moral History of the Indies, *which asserts that prehistoric Asians walked to North America using a land bridge. The Bering and Cook expeditions in the eighteenth centuries and archeological work in the nineteenth century seemed to strengthen the case for the theory. What would be most important basic information for teachers and students to know about pre-twentieth century work on the land bridge theory?*

Morgan: Essentially, the pre-twentieth-century work on this hypothesis was performed without an understanding of paleogeography and human history. As a result, it was oversimplified. Think, for a second, if modern medicine or engineering relied on pre-twentieth century ideas. At the time, these ideas were so accepted because the information available was minimal. These days, I feel behind if I go more that a week without reading the latest article on the peopling of the Americas! That is science. You operate with the information you have. When more information is available, you critique it and, if it is accepted through peerreview, incorporate it into your ideas. Advances in radiocarbon dating, paleoenvironmental analyses, and particularly ancient DNA analyses have taken us to an understanding that has changed the early ideas of the land bridge. Yes, the land bridge appears to have played a key role in the peopling of the Americas. But the timing

Archaeologists need three things for a site to be widely accepted by other scholars: unequivocal artifacts, secure geologic context, and reliable absolute ages (such as radiocarbon dates).

and degree of that role, which were once assumed, are now the subject of great debate. The original idea, stemming from the old science, was that people entered the Americas ~13,000 years ago, spread quickly throughout the continent, and settled the hemisphere. New data indicate people occupied the Americas by ~16,000 or 15,000 years ago. This raises two possibilities: (1) We are missing information that could reform our ideas. When the Americas were first settled, assuming we use the date of ~16,000 years ago, the Americas were ~20 percent larger than today, particularly along the coasts, due to lower sea levels. What is present on these underwater land masses that may change our thoughts? (2) Greater time depth, on the order of ~18,000 years ago or earlier, is needed to explain the widely distributed presence of people in the New World. However, we are currently missing secure evidence of humans in the Americas prior to ~16,000 years ago.

I should note that sites have been proposed that predate this 16,000-year date, but they have not been widely accepted. Archaeologists need three things for a site to be widely accepted by other scholars: unequivocal artifacts, secure geologic context, and reliable absolute ages (such as radiocarbon dates). Earlier sites have been proposed in both North and South America, but thus far, none have passed muster by meeting the above criteria to the satisfaction of the archaeological community.

Lucien: *US Government employee and later university professor David Hopkins appears preeminent in organizing and managing international teams of scientists in the 1950s–1980s to achieve seemingly an exponential advance in the strength of the theory. What are a few examples of Hopkins and associates' findings most important for teachers and students to consider?*

Morgan: Dr. Hopkins certainly played a key role in these early studies. . . . I mean, he doesn't have an award named for him for nothing. Overall, the question of the First Americans is essentially a geological one, and this is something Dr. Hopkins's work was fundamental in helping establish. His exacting work and reliance on precise radiocarbon dates was pioneering and his attention to the Arctic Circle certainly paved the way for subsequent and ongoing work in the area. Nowadays, multiple universities and scholars across the country are actively pursuing First Americans studies in regions such as the Pacific Northwest, the Great Basin, the American Southwest, the Lower Southeast, Mexico, Chile, Brazil, and Argentina, among others.

Lucien: *Again, focusing on instructors and students who will spend a minimal amount of time in a survey course on this topic, what additional comments might you have for our readers, and particularly reactions that might pique the interest of instructors or students who might want to learn more about the Bering Land Bridge theory?*

Morgan: Keep an open mind! Data is always changing, and it may be that ten years from now, the date and method of the initial colonization of the Americas has been pushed backward even further. One area I think is critical but understudied in the Bering Land Bridge theory specifically is underwater archaeological studies. Think about this for a second: the vast majority of the region we are debating is now submerged under icy seawater. Surely critical, even fundamental, data is thus waiting to be discovered.

Lucien: *Morgan, thanks for the interview!* ■