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Earlier Than They Thought Possible: Very Recent Findings on the Impressive Antiquity of Humans in the New World

Stephen C. Jett
scjett@hotmail.com

University of California, Davis

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This multimedia review provides a background, and highlights, a number of articles and a few books published during the 2020s, about the much-debated topic of the antiquity of humans in the Americas and their routes of entry. The evidence discussed is essentially all from North America; much material is present in South America as well, but I have failed to find much in terms of reports of very recent vintage.

Not all that long ago, among archaeologists it was gospel that big-game-hunting humans had first entered the New World from Northeast Asia's Chukotka ("Siberia") toward the end of the last glaciation around 14,000 years ago, across late Ice Age Bering Strait, which was still dry at the time owing to lowered sea levels consequent upon much former ocean water's remaining locked up in terrestrial ice sheets. Once arriving in America, so the scenario went, these debutants' descendants moved southward via a recently opened "ice-free corridor" between the Cordilleran (Rocky Mountain) and Laurentide (Canadian Shield) ice sheets. Meantime, these hunters had developed—about 13,050 years ago—what is called Clovis culture, which, during the circa 300 years of its existence, spread extremely widely in North America (Neely, 2020a; Waters et al., 2020). Clovis involved specialized hunting of Pleistocene megafauna such as mastodons, and the concomitant development of long, fluted spearpoints. Clovis emerged during a period of environmental change, and its end coincided with that of the last of the megafauna (Dycus, 2022b). Clovis was contemporary with other hunters' western-stemmed-point tradition of North America and the fishtail-point tradition of South America's Southern Cone (Walters, Stafford, and Carlson, 2020).

Still, no finds of Clovis points have ever been made in Alaska, or older plausible antecedent lithic industries there. The northernmost Clovis-point find in Canada is from the Lily Lake site in the Fort St. John area of northeastern British Columbia, associated with obsidian that had come from some 500 kilometers (310 mi.) to the southwest; carriers of a Clovis toolkit appeared to have been working their way *northward* as the developing ice-free corridor was beginning to open up (Britten, 2016). Too, as far back as the 1950s, a few bold observers had begun forwarding the thought that people may have been present in the hemisphere well before the Clovis manifestation—although in the unusually contentious arena of "early-man" studies, for decades such deviant thinkers were roundly reviled.

However, beginning in South America with southern Chile's Monte Verde site (dated in 1982) and including Meadowcroft Rockshelter in southwestern Pennsylvania, the Cactus Hill site in southeastern Virginia, the Debra L. Friedkin site in central Texas, Paisley Caves in south-central Oregon, and the Coopers Ferry site in western Idaho, it came to pass that multiple New World occurrences were being found that demonstrated seemingly unequivocal evidence of at least modest pre-Clovis age. Most of these sites have since been almost universally accepted as such, although there remain a few blanket dissenters: in 2022, the archaeologists Ted Surovell et al. questioned the integrity of relevant stratigraphic dates in North America, proposing that artifacts found buried

in seemingly pre-11,000 B.C. contexts had gradually migrated downward following initial surface deposition that had occurred millennia later. Other Paleo-Americanist archaeologists begged to differ, however (Malakoff, 2022).

If Clovis does *not* reflect the first human entry into the hemisphere, then the interior of northern North America would still have been glaciated, leaving no ice-free inland route to the south from Alaska. Accordingly, a new migrational mode came to be accepted, involving Pacific-coastal travel with the aid of watercraft along the so-called kelp highway (see Erlandson et al., 2007); much of the then-shoreline, such as Haida Gwai and Vancouver Island, BC, is now known to have remained largely free of ice and to have been vegetated and habitable. Genetics has come to play a major role in the evolving view of the subject, and a "Beringian standstill" hypothesis has come to dominate thinking (although Paleoamerican human morphology has caused me to be skeptical concerning there having been but a single migration, with all American Indians being descendants from its participants; Jett, 2007). "Beringia" was low-sea-level Chukotka plus Alaska and included vast areas now beneath the Bering Sea. Here is the abstract of a relevant recent article:

> During the Last Glacial Maximum [LGM, some 26,000–19,500 years ago], a small band of Siberians entered the Beringian corridor, where they persisted, isolated from gene flow, for several thousand years before expansion into the Americas. The ecological features of the Beringian environment, coupled with an extended period of isolation at a small population size, would have provided an evolutionary opportunity for novel genetic variation to arise as both rare standing variants and new mutations were driven to high frequency through both neutral and directed processes. Here we perform a full genome investigation of Native American populations in the Thousand Genomes Project Phase 3 to identify unique high-frequency alleles that can be dated to an origin in Beringia. Our analyses demonstrate that descendant populations of Native Americans harbor 20,424 such variants, which is on a scale comparable only to Africa and the Out of Africa bottleneck. This is consistent with simulations of a serial founder effects model. Tests for selection reveal that some of these Beringian variants were likely driven to high frequency by adaptive processes, and bioinformatic analyses suggest possible phenotypic pathways that were under selection during the Beringian Isolation period. Specifically, pathways related to cardiac processes and melanocyte function appear to be enriched for selected Beringian variants. (Miedbalski & Long, 2022, p. 1)

The University of Kansas anthropological geneticist Jennifer Raff has published *Origin: A Genetic History of the Americas* (2022), a synthetical multidisciplinary endeavor. After describing the history, she cogently consigns the Clovis-first hypothesis to the dustbin, noting the plethora of pre-Clovis sites accepted today. Raff observes that genetics does not support Dennis Stanford and Bruce Bradley's (2012) Solutrean hypothesis of transatlantic migrants from Biscayan Europe. She adopts the now-standard concepts of the Beringian standstill and the kelp-highway migrational corridor. She also offers observations on the ethics of data collection and rejects racist views that Native America was incapable of major accomplishments and that, therefore, they must have been preceded by earlier arrivals (for a review, see DeSilva 2022).

The Cree/Métis archaeologist Paulette F. C. Steeves at Ontario's Algoma University has published *The Indigenous Paleolithic of the Western Hemisphere* (2021), in which she argues for a much earlier human occupation of the hemisphere than is usually credited. She also offers a severe critique of "colonialist" New World archaeology. Artifacts and genetics are not the only pieces of evidence of a pre-Clovis presence. Several score fossil footprints of a young woman—"Zoe," carrying an infant—have been discovered in White Sands National Park, NM. Initially, their age was determined to surpass 12,000 years (Bennet et al., 2020; for summaries see Bennett et al., 2021; Dycus, 2022a; Neely 2020b; Smith 2020; Wade 2021). Further work has determined the date to lie between 23,000 and 21,000 years ago—during the LGM. *Archaeology Magazine* 75(1) named these tracks as one of the "Top 10 Discoveries of 2021" (also summarized 2021/2022 in *Current World Archaeology, 10*(2), pp. 10–11). Eighty-eight human tracks of comparable age have also been identified on the Air Force's Utah Testing and Training Range to the west of Salt Lake City, UT (Neely, 2022).

New Mexico has also recently yielded the remains of two butchered and burned mammoths, at the Hartley site, in the north. Meticulous dating has tagged the occurrence as having an age of about 37,000 years and, therefore, as being one of the oldest dated places of human presence in North America (Rowe et al., 2022). Mexico has been returning some pre-Clovis dates as well, the currently most-discussed being from Chiquihuiti Cave in central-northern Mexico's Zacatecas state. Anciently, the shelter housed a previously unknown but millennia-long-lasting stone tool industry. The materials date to

between 25,000 and 30,000 years ago, overlapping with the LGM and beginning perhaps as early as 33,000 years ago, *pre*-LGM. Some specialists question whether the Chiquihuiti lithics are human productions, but they look to me to be obvious artifacts. No cut marks were found on associated animal bones. The question has also been raised that if the objects are artifacts, why have no others with these forms been discovered anywhere else (Curry, 2020, p. 355)? No human remains, including DNA, were found in the cave. Nevertheless, lead author Ardelean is quoted as saying:

> We don't know who they were, where they came from, or where they went. They are a complete enigma. We falsely assume that the indigenous populations in the Americas today are direct descendants of the earliest Americans, but now we do not think that is the case. By the time the famous Clovis population entered America, the very early Americans had disappeared thousands of years before. There could have been many failed colonizations that were lost in time and did not leave genetic traces in the population today. (News Staff/Source, 2020)

This position is radical among archaeologists, but I tentatively subscribe to it.

A single site within the greater continent has yielded comparable dates, Bluefish Cave in the Yukon Territory, which is considered to be some 24,000 years old. Only a few of its myriad broken animal bones show cut marks, and stone tools there are scarce.

There also exist a few allegedly *very* old—and very controversial (professional careers have cratered) sites, such as Calico in California's Mojave Desert and Hueyatlaco in Mexico's Puebla state, implying pre *sapiens* human entry into the hemisphere, but I know of no recent work that has been reported.

There are now other reliably Late Pleistocene–Early Holocene dates for culturally diverse human presences in Northwest Mexico, the Chiapas highlands, and Central Mexico, and on the country's Caribbean coast, but the population was apparently long very sparse. Beginning 14,000–15,000 years ago, populations increased substantially (Arderlean et al., 2020).

Becerra-Valdivia and Higham (2020) synthesized the earliest accepted archaeological dates from 42 North American and Beringian sites and concluded that:

> The data obtained show that humans were probably present before, during, and immediately after the Last Glacial Maximum (about 26.5–19 thousand years ago) but that more widespread occupation began during a period of abrupt warming, Greenland Interstadial (about 14.7–12.9 thousand years before A.D. 2000). We also identify the near-synchronous commencement of Beringian, Clovis, and Western Stemmed cultural traditions, and an overlap of each with the last dates for the appearance of 18 now-extinct faunal genera. Our analysis suggests that the widespread expansion of humans through North America was a key factor in the extinction of large terrestrial mammals (p. 93).

Highly respectable though some of the above dates are, they pale in comparison to San Diego County, CA's, Cerutti Mastodon site, which comes in at some 130,700 years old (Holen et al., 2017)! Human involvement in site-formation there was questioned, but later technical examination of the site's cobbles—apparently used to crack open mastodon bones for their marrow—supported that function and, therefore, the genuineness of the site as of human origin.

My graduate-school mentor George F. Carter (1912–2004), a San Diego native, was the much-criticized, even caricatured pioneer in forwarding evidence of long-pre-Clovis humans in the Americas, publishing his *Pleistocene Man at San Diego* in 1957 (see also, Carter, 1980). I am certain that he would be smiling knowingly were he still with us.

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