Robert V. Davis, Jr. *The Search for the First Americans: Science, Power, Politics*. Norman: University of Oklahoma Press, 2023. 220 pages. ISBN 9780806192291. $21.95 USD paperback.

The author holds a Ph.D. in science and technology studies and worked in the public service of the federal government of the United States until his retirement. Don't let the original hardcover 2021 publication date fool you; almost all the literature cited by the author was published more than a decade before that. A lot has changed over the past 10 to 15 years but Davis largely ignores recent findings, perhaps because they fundamentally undermine the premise of the book. This is a serious, even fatal, flaw.

Davis takes the position that the scientific search for the First Americans has been a failure. He blames anthropologists and archaeologists for the problem, citing their refusal to accept evidence that contradicts the "Clovis-first" model. Clovis is the projectile point form that appeared in virtually all unglaciated parts of North America at the very end of the last Ice Age (Pleistocene epoch) and appears on the cover of the book. After the lanceolate shape was achieved by bifacial flaking, the flintknapper turned the point upside down and removed a large flake from each side (basal fluting) to facilitate hafting. Clovis points are large and were either affixed directly onto a spear or (more likely) to a short foreshaft that would be placed over the butt of the shaft. When used with a foreshaft, the point-tipped foreshaft become embedded in the target but impact recoil causes the spear shaft to be released. The hunter could then pick it up and re-arm it with another point-tipped foreshaft, essentially producing a semi-automatic spear.

Dogma exists in every academic discipline, but Davis equates demands for solid evidence with conspiracies to deny the truth. As Carl Sagan stated, "Extraordinary claims require extraordinary evidence." Archaeology is a social science; excavation destroys the context of the cultural remains recovered and interpretations are subjective. For this reason, care must be taken to assess the validity of novel, unexpected or otherwise surprising interpretations offered by archaeologists. It is essential that claims about the pre-Clovis peopling of the New World rest on multiple lines of evidence all supporting the interpretation, including the co-occurrence of Pleistocene animals (fauna), vegetation (flora), artifact assemblages and multiple radiometric dates from reliable samples collected from secure contexts. When this threshold is met, there is acceptance. Davis admits that Meltzer et al. (1997) called for the archaeological community to accept Tom Dillehay's reports of pre-Clovis finds at Monte Verde, Chile. In the paper published in *American Antiquity*, a prominent journal, Meltzer and colleagues (1997:662) wrote, "Given that Monte Verde is located some 16,000 km south of the Bering Land Bridge, the results of the work here imply a fundamentally different history of human colonization of the New World than envisioned by the Clovis-first model and raise intriguing issues of early human adaptations in the Americas." More recently, Dillehay and colleagues (2015) reported multiple radiocarbon and luminescence dates that suggest the site occupation began at least 18,500 calibrated years before present (cal BP).

Over the last 15 years, papers presenting archaeological evidence of several other pre-Clovis occupations have been published in major, peer-reviewed scientific journals; Davis barely mentions them or ignores them altogether. Many professional archaeologists accept Paisley Caves, Oregon (Jenkins 2007; Jenkins et al. 2012, 2014) as a pre-Clovis site; evidence includes dozens of

radiocarbon dates on woven sandals, rope, basketry, human coprolites (ancient feces) as well as the bones of extinct Pleistocene megafauna, including horse and camelids (Jenkins et al. 2014). Williams et al. (2018) published optically stimulated luminescence (OSL) dates of between 21.7 and 16.7 thousand years ago on material from the Gault site, Texas, that was found underneath the Clovis occupation. The OSL dates on the Gault site Clovis level of 13.6 and 11.9 thousand years ago are consistent with expectations (Williams et al. 2018). Davis et al. (2019) published dates obtained on charcoal and animal bones findings from the Cooper's Ferry site, Idaho that show the oldest occupation occurred 16,500 to 16,300 years ago. In a paper published in *Nature*, Moreno-Mayer et al. (2018) argue that ancient DNA evidence shows that the North American and South American branches of New World Indigenous people diverged around 17.5–14.6 thousand years ago and this population split probably occurred south of the North American ice sheets. More recently, Ardelean et al. (2020) reported that over 50 radiocarbon and luminescence dates from Chiquihuite Cave show it was occupied 26,500–19,000 years ago. The remote cave is in the mountains of north-central Mexico; the authors (2020) argue the surrounding region was initially populated even earlier, possibly 31,000 to 33,000 years ago. Much of the issue of *Nature* in which this article appears was dedicated to the peopling of the New World.

There was never a scheme to supress evidence of pre-Clovis occupations of the New World, only demands that claims be based on reliable data. The interpretations presented by both Dillehay and Jenkins were subject to intense scrutiny before being accepted. Their research at Monte Verde and Paisley Caves, respectively, passed the test and earned acceptance. The same cannot be said about Meadowcroft Rockshelter, Pennsylvania which was excavated by James Adovasio in the 1970s. Davis highlights personality conflicts with other archaeologists but admits that Adovasio has never published his results in an academic rigorous manner. Davis does not mention that Mead (1980) and Haynes (1980) argue that the early radiocarbon dates could result from contamination of the samples by coal (i.e., ancient carbon depleted in carbon-14) and that the projectile points and plant and animal assemblage typical of a temperate forest indicate the site was occupied thousands of years later during the Holocene.

The book consists of twelve chapters divided into three parts. In Part 1: First American Theories, Myths, and Evidence (Chapters 1 to 5), Davis discusses creation myths generally and American Indigenous perspectives, more specifically. The evolution of Euro-american perceptions on New World inhabitants and their entry since the 1500s is reviewed; after this, the "Clovis-First" paradigm is described. The differential treatment of finds from Monte Verde, Chile and those from Meadowcroft Rockshelter, Pennsylvania is reviewed. Alternative perspectives are considered in a discussion of Atlantis and Chinese Bestiary.

Part II First American Science (Chapters 6 to 9) includes unflattering critiques of anthropology and archaeology. Various approaches of skeletal assessment used in bioanthropology (more commonly referred to as biological or physical anthropology) and potential contributions from genetics (without mentioning the findings of Moreno-Mayer et al. 2018), linguistics and physics (which Davis equates with radiocarbon dating, a technique developed by Nobel prize-winning chemist Dr. Willard Libby). The role of laboratories and museums is then discussed.

Part III Community (Chapters 10 to 12) includes a discussion of Indigenous identity and heritage preservation and the Native American Graves Protection and Repatriation Act (NAGPRA). Kennewick Man and finds from the Tarim Basin in China are presented as case studies of the impact of nationalism, political power and property rights. The skeleton of Kennewick Man, also know as the Ancient One, found in Washington State in 1996, had features typically associated with Caucasians (in particular, the British actor Patrick Stewart) but appeared to be very old. After years of litigation, the archaeological and scientific community won the right to perform radiocarbon dating and ancient DNA analysis on the remains. Results showed the individual lived about 8340-9200 calibrated years before present and was most closely related to Native North Americans (for details see Rasmussen et al. 2015). Davis then outlines efforts by the Chinese government to suppress evidence of auburn-haired mummies with European features from the Tarim Basin that could support ancient Uyghurs settlement in the Xinjiang region.

In the conclusion, Davis discusses distrust between First American scientists and Indigenous groups, and bemoans that archaeologists admit that archaeology is not a science. While archaeologists rely on empirical data, the study of archaeological sites, their excavation and interpretation are subjective so the discipline is correctly classified as a social science. Archaeological research is very different from that of a hard science using data from experiments that can be replicated in any lab in the world. Davis notes that some archaeologists lack the training to communicate with the scientists who analyze their samples. Textbooks, such as *A Consumer's Guide to Archaeological Science* (Malainey 2011), exist to address such deficiencies.

The Backmatter section includes footnotes, references, and an index.

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