Review article
More (and more) on Clovis

Michael J. O'Brien*

BRUCE B. HUCKELL & J. DAVID KILBY (ed.). *Clovis caches: recent discoveries and new research*. 2014. ix+245 pages, 100 b&w illustrations, 49 tables. Albuquerque: University of New Mexico Press; 978-0-8263-5482-2 hardback £49.60 & $75.

ASHLEY M. SMALLWOOD & THOMAS A. JENNINGS (ed.). *Clovis. On the edge of a new understanding*. 2015. vii+364 pages, 30 b&w illustrations. College Station: Texas A&M University Press; 978-1-62349-201-4 hardback £33 & $50.



It is a great time to be an archaeologist interested in the colonisation of North America. A recent flood of excellent, well-researched volumes and papers have addressed not only the archaeology of that colonisation, but also the archaeogenetic evidence as well. The exact timing of the colonisation remains open to question, as is the exact point of entry into the interior of the continent, but what is not in dispute is the origin of the early colonists. The archaeological and archaeogenetic evidence overwhelmingly indicates that humans entered North America by way of Beringia—a land bridge that connected Asia and North America at various times during the Pleistocene—and that the descendants of those migrants manoeuvred around the massive ice sheets that covered much of western North America, moving south along the coast and later, perhaps via an ice-free corridor that ran north-west to south-east through Canada. With respect to timing, archaeogenetic data indicate that colonising populations entered North America at least 17 000 years ago, but the earliest well-documented archaeological traces of human occupation of the continent date several thousand years later. That period is marked by bifacially chipped and fluted stone weapon tips known as 'Clovis' points, which exhibit parallel to slightly convex sides, a concave base, and a series of flake-removal scars on one or both faces that extend from the base to about a third of the way to the tip. These points were hafted to spears that were thrust and/or thrown. Clovis points were first documented in the American Southwest and have since been found throughout the contiguous United States, Alaska, southern Canada and northern Mesoamerica. They date to *c.* 13 300–12 800 cal BP in the west and *c.* 12 800–12 500 cal BP in the east. The difference in chronological ranges between the two areas is often explained as the result of Clovis points originating in the west and then spreading eastward as the result of population movement.

The two books reviewed here are significant additions to our understanding of the Clovis period and the archaeological culture that bears its name. Both works grew out of symposia held at annual meetings of the Society for American Archaeology: the Huckell and Kilby volume from a session at St Louis, Missouri, in 2010, and the Smallwood and Jennings volume from one in Sacramento, California, in 2011. Unlike many so-called 'edited' volumes, which in reality are nothing more than a bunch of lightly copy-edited (if at all) papers, these volumes contain contributions that have the look and feel of solid chapters written by highly competent archaeologists, and edited for readability and uniformity by equally competent editors. Both books are well illustrated, and the references are invaluable. The bottom line: anyone interested in Clovis archaeology will find both texts well worth having on the shelf. I cannot summarise here all the important material from the 12 chapters in the Huckell and Kilby volume or from the 18 in that of Smallwood and Jennings; instead, I focus on a broader issue that is front and centre in each book and that should be of concern to all archaeologists, regardless of where they happen to work. Unfortunately, it is a message

* *Department of Anthropology, University of Missouri, 107 Swallow Hall, Columbia, MO 65211, USA (Email: obrienm@missouri.edu)*

© Antiquity Publications Ltd, 2016
ANTIQUITY 90 350 (2016): 525–527 doi:10.15184/aqy.2016.27

https://doi.org/10.15184/aqy.2016.27 Published online by Cambridge University Press

that is all too often overlooked: how do we identify something as being tied to one particular culture or time period as opposed to another? For example, how do we identify an artefact as a Clovis point? This is, of course, an epistemological issue but, although it is of paramount interest to philosophers of science, it is rarely addressed in archaeology.

Typical archaeological practice is to create nominal units—artefact types—based on similarities in terms of shape or form (or perhaps from decoration in the case of pottery). This is fine as long as our interest is strictly in creating a means of shorthand communication, but such units are of limited analytical use. The problem is that there is a lack of redundancy in the characteristics used to create types. In the case of projectile points, one point type might be defined primarily by blade length and curvature, whereas another point type may be defined by basal shape and curvature. As a result, types are fuzzy amalgams of characteristics and cannot capture the variation in point shape. Thus it becomes impossible to talk about the reasons for the variation, which might be the result of chronological or functional differences. This is particularly problematic in cases where cultures and the like are defined primarily on the basis of a certain type of artefact—for example, the Clovis point.

Smith and colleagues' chapter in the Smallwood and Jennings volume is an excellent study that attempts to move beyond the typological problem and to examine the shape range of Clovis fluted points through the use of geographic models of geometric morphometric (GM) variation. Within the GM framework, which is becoming increasingly common in archaeology, shape is defined as the geometric properties of an object that are invariant to location, scale and orientation. As opposed to the inter-landmark distances of standard morphometrics, GM methods deal with coordinate data and allow patterns of variation in shape to be investigated within a well-understood statistical framework that yields easily interpreted numerical and visual results.

Smith *et al.* use a sample of 144 bifacial points (all described in the literature as 'Clovis') from 28 North American sites to assess regional differences in shape. They find that points from the Northeast, characterised by deep basal concavities and considerable variation in basal-concavity width, are distinct from points in three other regions—the Midcontinent, the Northwest and the Southwest. In their words, "some early points from eastern North America [...] have the potential to represent point shapes that are beyond a limit, or a threshold, of point variability that is definitive of Clovis", which they characterise as having "shallow basal concavities, greater length relative to width, and excurvate blades" (p. 161).

Two points are important here: where does one make breaks between artefact types, and what factors contributed to shape differences? In terms of the first point, if what we are measuring is variation in a tightly controlled manner, it probably does not matter where we make a division, as long as it is clearly designated and the results can be replicated. With regard to the second point, Smith *et al.* propose that the differences between the Northeast and the rest of the continent "may be the result of variation caused by cultural drift [. . .] or founder effect [. . .] as people expanded into uninhabited territory at the end of the Pleistocene" (pp. 176–77). The chapter by Smith *et al.* is noteworthy as another excellent example of attempting to tie patterns in the archaeological record to learning models and other aspects of cultural transmission, including drift.

The Huckell and Kilby volume brings together for the first time a wealth of information about the numerous caches of Clovis stone and, in rare instances, osseous tools that have been found west of the Mississippi River. These caches are important archaeologically for several reasons, not least of which is the fact that they often contain tools that are in the early stages of use as compared to tools from campsites and kill sites, which are often broken or heavily resharpened. Also, and perhaps more important, caches offer insights into the manner in which Clovis people exploited the late Pleistocene landscape. Interestingly, caches of tools are almost unknown in periods immediately following Clovis, so either there exists a rather significant bias in sampling—highly unlikely, given the number of known Clovis caches—or later people organised themselves in a different manner when it came to hunting practices. We would guess that caches were just that: stockpiles of tools that one did not have to carry around but which could be used in the future. Apparently, post-Clovis hunters either did not revisit the same spots on a regular basis or saw no need to stockpile hunting tools.

Returning to the point made above about the definition of archaeological units, what about caches that appear to be Clovis but that lack the diagnostic hallmark, the Clovis projectile points? Can technological analysis of the stone tools that *are* found

© Antiquity Publications Ltd, 2016

https://doi.org/10.15184/aqy.2016.27 Published online by Cambridge University Press

in those situations (e.g. blades, bifaces and cores) lead to the conclusion that a cache is, in fact, Clovis—what in their introductory chapter Huckell & Kilby refer to as an "increasingly murky [analytical] path" (p. 6)? The answer, it would seem, is yes, although as several authors point out in their chapters, considerable caution is needed. The chapters by Huckell on the Beach cache from South Dakota and by Lohse *et al*. on the Hogeye and de Graffenreid caches from Texas and the Fenn cache from the converging corners of Wyoming, Utah and Idaho are examples of such careful analysis.

In summary, the two volumes reviewed here do more than add needed information on what I consider to be the most important New World archaeological question: when and where did the Clovis culture begin, and how did it spread across North America? These books call into question much of what we once thought we knew about Clovis, and they offer challenges for future exploration. Goebel's concluding chapter in the Smallwood and Jennings volume is a straightforward status report identifying the leading issues and how little we know about some of them. One issue that recurs throughout these papers is the chronological range of the Clovis period and how much time would have been needed for Clovis groups to make their way across an unknown environment, not to mention how they organised themselves while moving east. Logistical organisation was key to effective use of the food sources available to Clovis groups, and chapters in both volumes address effective hunting strategies, indicated by locations of campsites, kill sites and caches, and the kinds of tools and animal remains that have been recovered. Gone are the days of thinking of Clovis people as exclusively or primarily hunters of mammoths (in the west) and mastodons (in the east). Rather, it is quite clear that Clovis hunters put themselves in specific locales to take advantage of their prey; they were what Ballenger, in the Smallwood and Jennings volume, refers to as "well-adapted generalists in special environments characterized by abundant, and possibly circumscribed, large game populations" (p. 198).

Titles such as these remind us that this is an exciting time for anyone interested in the colonisation of North America. We know an awful lot, but there is more (and more) to come. These two books help point us in highly productive directions.

© Antiquity Publications Ltd, 2016

https://doi.org/10.15184/aqy.2016.27 Published online by Cambridge University Press