

Review

More (and more) on Clovis

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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.



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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 17000 years ago, but the earliest well-documented archaeological traces of human occupation of the continent date several thousand years later. It is

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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 c. 13300–12800 cal BP in the west and c. 12800–12500 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 entries 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 that is all too often overlooked: how do we

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72	identify something as being tied to a particular culture	123
73	or time period as opposed to another? For example,	124
74	how do we identify an artefact as a Clovis point?	125
75	This is, of course, an epistemological issue but,	126
76	although it is of paramount interest to philosophers	127
77	of science, it is rarely addressed in archaeology.	
78	Typical archaeological practice is to create nominal	128
79	units—artefact types—based on similarities in terms	129
80	of shape or form (or perhaps from decoration in the	130
81	case of pottery). This is fine as long as our	131
82	interest is strictly in creating a means of shorthand	132
83	communication, but such units are of limited	133
84	analytical use. The problem is that there is a lack of	134
85	redundancy in the characteristics used to create types.	135
86	In the case of projectile points, one point type might	136
87	be defined primarily by blade length and curvature,	137
88	whereas another point type may be defined by basal	138
89	shape and curvature. As a result, types are fuzzy	139
90	amalgams of characteristics and cannot capture the	140
91	variation in point shape. Thus it becomes impossible	141
92	to talk about the reasons for the variation, which	142
93	might be the result of chronological or functional	143
94	differences. This is particularly problematic in cases	144
95	where cultures and the like are defined primarily on	
96	the basis of a certain type of artefact—for example,	
97	the Clovis point.	
98	Smith and colleagues' chapter in the Smallwood and	
99	Jennings volume is an excellent study that attempts to	
100	move beyond the typological problem and to examine	
101	the shape range of Clovis fluted points through the	
102	use of geographic models of geometric morphometric	
103	(GM) variation. Within the GM framework, which is	
104	becoming increasingly common in archaeology, shape	
105	is defined as the geometric properties of an object that	
106	are invariant to location, scale and orientation. As	
107	opposed to the inter-landmark distances of standard	
108	morphometrics, GM methods deal with coordinate	
109	data and allow patterns of variation in shape to	
110	be investigated within a well-understood statistical	
111	framework that yields easily interpreted numerical	
112	and visual results.	
113	Smith <i>et al.</i> use a sample of 144 bifacial	
114	points (all described in the literature as 'Clovis')	
115	from 28 North American sites to assess regional	
116	differences in shape. They find that points from the	
117	Northeast, characterised by deep basal concavities	
118	and considerable variation in basal-concavity width,	
119	are distinct from points in three other regions—the	
120	Midcontinent, the Northwest and the Southwest. In	
121	their words, "some early points from eastern North	
122	America [...] have the potential to represent point	
	shapes that are beyond a limit, or a threshold, of	123
	point variability that is definitive of Clovis", which	124
	they characterise as having "shallow basal concavities,	125
	greater length relative to width, and excurvate blades"	126
	(p. 161).	127
	Two points are important here: where does one	128
	make breaks between artefact types, and what factors	129
	contributed to shape differences? In terms of the first	130
	point, if what we are measuring is variation in a	131
	tightly controlled manner, it probably does not matter	132
	where we make a division, as long as it is clearly	133
	designated and the results can be replicated. With	134
	regard to the second point, Smith <i>et al.</i> proposed that	135
	the differences between the Northeast and the rest of	136
	the continent "may be the result of variation caused by	137
	cultural drift [...] or founder effect [...] as people	138
	expanded into uninhabited territory at the end of	139
	the Pleistocene" (pp. 176–77). The chapter by Smith	140
	<i>et al.</i> is noteworthy as another excellent example	141
	of attempting to tie patterns in the archaeological	142
	record to learning models and other aspects of cultural	143
	transmission, including drift.	144
	The Huckell and Kilby volume brings together for the	145
	first time a wealth of information about the numerous	146
	caches of Clovis stone and, in rare instances, osseous	147
	tools that have been found west of the Mississippi	148
	River. These caches are important archaeologically for	149
	several reasons, not the least of which is the fact that	150
	they often contain tools that are in the early stages of	151
	use as compared to tools from campsites and kill sites,	152
	which are often broken or heavily resharpened. Also,	153
	and perhaps more important, caches offer insights	154
	into the manner in which Clovis people exploited	155
	the late Pleistocene landscape. Interestingly, caches	156
	of tools are almost unknown in periods immediately	157
	following Clovis, so either there exists a rather	158
	significant bias in sampling—highly unlikely, given	159
	the number of known Clovis caches—or later people	160
	organised themselves in a different manner when it	161
	came to hunting practices. We would guess that caches	162
	were just that: stockpiles of tools that one did not have	163
	to carry around but which could be used in the future.	164
	Apparently post-Clovis hunters either did not revisit	165
	the same spots on a regular basis or saw no need to	166
	stockpile hunting tools.	167
	Returning to the point made above about the	168
	definition of archaeological units, what about caches	169
	that appear to be Clovis but that lack the	170
	diagnostic hallmark, the Clovis projectile points? Can	171
	technological analysis of the stone tools that <i>are</i> found	172
	in those situations (e.g. blades, bifaces and cores) lead	173

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174	to the conclusion that a cache is, in fact, Clovis—what	198
175	in their introductory chapter Huckell & Kilby refer	199
176	to as an “increasingly murky [analytical] path” (p. 6)?	200
177	The answer, it would seem, is yes, although as several	201
178	authors point out in their chapters, considerable	202
179	caution is needed. The chapters by Huckell on the	203
180	Beach cache from South Dakota and by Lohse <i>et</i>	204
181	<i>al.</i> on the Hogeeye and de Graffenreid caches from	205
182	Texas and the Fenn cache from the converging corners	206
183	of Wyoming, Utah and Idaho are examples of such	207
184	careful analysis.	208
185	In summary, the two volumes reviewed here do more	209
186	than add needed information on what I consider to	210
187	be the most important New World archaeological	211
188	question: when and where did the Clovis culture	212
189	begin, and how did it spread across North America?	213
190	These books call into question much of what we	214
191	once thought we knew about Clovis, and they offer	215
192	challenges for future exploration. Goebel’s concluding	216
193	chapter in the Smallwood and Jennings volume is a	217
194	straightforward status report identifying the leading	218
195	issues and how little we know about some of them.	219
196	One issue that recurs throughout this entry is the	220
197	chronological range of the Clovis period and how	221
	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.	