IN THE Eastern Fluted Point TRADITION Volume II EDITED BY Joseph A. M. Gingerich

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Reviewed by John M. Lambert, Illinois State Archaeological Survey, University of Illinois at Urbana–Champaign.

Gingerich sets out two main goals for the follow up to the first volume in this series: 1) to better represent the archaeology of the Northeast and Great Lakes, and 2) to provide additional detailed site-level data and synthesis of the East-

ern Paleoindian record. The twenty-one chapters certainly accomplish these aims, with a notable emphasis on recently excavated or discovered sites. Other chapters provide regional syntheses or updated analysis of more well-known sites. Taken as a whole, the volume offers a cogent, data-driven look at eastern Paleoindian settlement-subsistence systems and technological organization that Midwestern archaeologists will appreciate.

The volume is organized in three main parts, with a concluding chapter provided by Gingerich. In Part I, nine chapters provide site reports that detail excavation, survey, and analysis at sites that span eastern North America. In Chapter 1, John Broster and Mark Norton showcase analysis of the lithics from the Carson-Conn-Short quarry site in Tennessee, and highlight the potential for buried, intact Clovis-age features and stratified deposits. Future work at the site should examine the extent and integrity of these deposits, as well as their relationship with younger, intrusive features. Carson-Conn-Short offers a rare glimpse at the complete reduction sequence for a number of important Clovis technologies, including projectile points, bifaces, and blades. In Chapter 2, Dennis Stanford and colleagues detail recent work at the Mockhorn Island site in Virginia, which is situated on a former upland adjacent to a now-inundated portion of the Continental Shelf. The Mockhorn Island assemblage challenges many of our ideas about Clovis mobility and technological organization-the lithic assemblage is dominated by local raw materials, bipolar reduction, and woodworking tools such as adzes, wedges, and drills that may have been used in the production of watercraft. Their chapter also highlights the dynamic nature of coastal deposits and their vulnerability to erosion caused by sea level rise and extreme weather associated with global warming. Many Early Paleoindian coastal sites have already been inundated during the Holocene, and we can ill-afford to lose the limited number we have left given their unique placement and potential to elucidate aspects of behavior that differ from locations further inland. In Chapter 3, R. Michael Stewart and Jennifer Rankin describe recent excavation and testing at five sites in the Clovis Snyder Site Complex in New Jersey's Delaware Valley. While I agree with Stewart and Rankin's assessment that Snyder represents an important, repeatedly occupied location adjacent to a major travel corridor, their arguments about site functions and the direct relationship between the Synder sites and the Plenge site require further testing via controlled excavation.

In **Chapter 4**, R. Michael Stewart and colleagues document the occupations at Nesquehoning Creek in Pennsylvania, which contains stratified deposits that span the Early Paleoindian to Late Woodland periods. Their thorough examination of the site's geomorphology, chronology, and lithic assemblage (including refitting) should be a model for how researchers can squeeze high quality data from sites that lack preserved flora and fauna-a common situation across the Northeast and Great Lakes. Stewart and colleagues successfully elucidate the chronology and nature of Early, Middle, and Late Paleoindian components at the site and demonstrate Nesquehoning Creek's potential to answer questions about behavioral change and continuity across the Younger Dryas boundary. In Chapter 5, Zachary Singer and Brian Jones investigate two sites on the Mashantucket Pequot Reservation in Connecticut, the Middle Paleoindian Ohomowauke site and the Late Paleoindian Hidden Creek site. They combine lithic and spatial analysis at both sites to highlight multiple activity areas, the potentially gendered use of space, and strikingly similar patterns of raw material use, toolkit organization, and on-site activities. However, their argument that spatially-restricted deposits at Hidden *Creek* are "consistent with activities occurring within a shelter, possibly during winter months" needs to be verified with other lines of evidence before other possibilities can be ruled out. In **Chapter 6**, Richard Gramly documents the impressive Gainey assemblage from the Sugarloaf site in Massachusetts. The site is situated in a favorable location near the confluence of six rivers and is dominated by points and associated bifacial reduction debitage. I agree with Gramly that amateur archaeologists are a critical piece of our effort to flesh out the Paleoindian archaeological record, but he needs to do more to address potential concerns with 1) uncontrolled excavation at the site by collectors, 2) why the site was intentionally capped with fill and placed in an archaeological conservancy, and 3) where artifacts are currently curated and whether they are available to other archaeologists for analysis.

In Chapter 7, Richard Boisvert and Nathaniel Kitchel describe the Colebrook site in New Hampshire, a Middle Paleoindian site with good absolute dating and the association of several small, circular features they interpret as post molds. In **Chapter 8**, Richard Boisvert, Heather Rockwell, and Bruce Rusch document the multicomponent (Early and Middle Paleoindian) Potter site in New Hampshire. Like many sites in the Northeast and Great Lakes, Potter has no preserved organic remains. Despite this, Boisvert and colleagues successfully combine lithic analysis with usewear studies to document a range of activities at the site. In **Chapter 9**, Metin Eren and colleagues examine the large and impressive Paleo Crossing Clovis site from Ohio and argue convincingly that the lithic assemblage attests to rapid movement and efficient transport and manufacturing decisions by a group moving 500 km from a raw material source. Use wear confirms the dominance of hide working and butchery at the site. The possibility that post molds and pits at the site may represent Clovis-aged structures is also extremely tantalizing. They also use geometric morphometric analysis to demonstrate that the shape of fluted points from Paleo Crossing cannot be distinguished from "classic" Clovis points from across the continent, despite the fact that they were produced on small flake blanks. I would also note that their rigorous statistical analysis of variation in

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Clovis point shape also indicates that the distinction between Clovis and Gainey points may not be a meaningful one. This chapter is one of the highlights of the volume.

In Part II, seven chapters present regional-scale fluted point surveys or syntheses of existing data. In Chapter 10, Charlotte Pevny, David Thulman, and Michael Faught provide an overview of the Paleoindian through Early Archaic projectile point sequence in Florida. While post-Clovis point styles certainly differ here when compared to the greater Southeast, I think it is much more likely that the lack of a well-defined type between Clovis and Suwanee represents a gap in our knowledge, rather than a real Younger Dryas population decline or hiatus in the record as they argue. Similar archaeological gaps posited for other regions have not held up once more evidence and typologies with tighter chronological control have become available. Pevny and colleagues also argue that manufacturing strategies used in the production of extremely variable corner- or side-notched Early Archaic Bolen points demonstrate "descent by modification" from earlier Clovis and Late Paleoindian forms, and by extension a physical ancestor-descendent relationship. The biological relationship of Clovis and Early Archaic populations has never seriously been in doubt. Their phylogenetic treatment of projectile point forms conflates cultural and biological evolution at several levels and represents a fundamental misapplication of cultural transmission theory. In Chapter 11, Randolph Daniel Jr. and Albert Goodyear document the regional distribution of two major lithic raw materials in the Carolinas. The differential distribution of northern vs. southern sources could indeed represent Clovis microbands as they argue, but it could just as easily be the result of standard distance-decay curves associated with raw material use and transport. Regardless, the chapter makes an important contribution to our understanding of raw material use and transport in the region. In Chapter 12, Albert Goodyear drills in on a group of Clovis quarry sites along the Georgia/South Carolina border, including the large Topper site. Like Carson-Conn-Short, these sites represent an important opportunity to examine Clovis reduction strategies and raw material procurement decisions. Finished points and end scrapers, and by extension hunting and hide preparation, are rare at these sites. Goodyear interprets this as evidence for "a subtropical Clovis adaptation" with a "simple but widespread technology, where habitation sites as a response to overwintering problems were not necessary." A more parsimonious explanation is that blanks and preforms were transported away from these quarries and finished, used, and discarded elsewhere.

In **Chapter 13**, Phillip Carr and Andrew Bradbury perform PCA on Clovis point metrics from six Southeastern states. They find no regional differences in Clovis point shape, which they interpret as evidence for high mobility and rapid colonization of the region. This very well could be true but needs to be evaluated with additional lines of evidence including patterns of raw material transport, technological organization, and improved dating of Clovis components in the region. In **Chapter 14**, Darrin Lowery and Daniel Wagner describe Paleoindian through Early Archaic use of orthoquartzite from the Delmarva Peninsula. The use of this material ceased after the Early Archaic, indicating the source was likely inundated by Holocene sea level rise—a hypothesis which they seem to confirm with the collection of orthoquartzite nodules in offshore

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contexts. In **Chapter 15**, Jonathan Lothrop and colleagues present new data on Early to Late Paleoindian archaeology from excavations, isolates, and private collections from the Wallkill/Rondout Valley of New York and New Jersey. While their sample is not enormous, they provide good descriptions of site contexts and their relation to regional lithic and biotic resources. The formation of early wetlands on recently deglaciated terrain appears to have been a major draw, and we should be looking for analogous distributions of sites in the Great Lakes and upper Midwest in similar geomorphic settings. In **Chapter 16**, Francis Robinson IV, John Crock, and Wetherbee Dorshow document the distribution of Paleoindian sites adjacent to the Champlain Sea in New York and Vermont. Early Paleoindian groups seem to have colonized the basin as soon as marine productivity increased in the Late Pleistocene, and Middle and Late Paleoindian groups continued to exploit shoreline and estuary resources throughout the Late Pleistocene and Early Holocene. This chapter further emphasizes the importance of coastal and wetland resources for colonizing populations moving into recently deglaciated environments.

Part III presents four chapters on artifact- or site-specific studies. In **Chapter 17**, Derek Anderson details a very successful program of debitage refitting from two excavation blocks at the Topper site in South Carolina. Here, Clovis material is partially mixed with younger Early Archaic material, but Anderson teases apart the relationship between these components and documents several activity areas via refitting. He also successfully demonstrates the association of a hearth and directly dated material with the Clovis occupation at Topper. The validity of the potential pre-Clovis component and its relationship to younger Paleoindian deposits still remains to be verified, however. In Chapter 18, Metin Eren and Briggs Buchanan formally test the prediction that more exhausted unifacial tools that are smaller, rounder, and have steeper edge angles should be found further from raw material sources. Surprisingly, this hypothesis is not supported. They rightly point out that a greater reliance on logistical mobility than previously supposed may explain this pattern. An alternative explanation they do not consider is that distance from a raw material source may not bear a direct relationship with *time* since retooling, especially for residentially mobile foragers with large seasonal rounds. They also do not account for differences in raw material that may affect original blank size. These are minor criticisms though, and their chapter deserves praise for its logical and analytical clarity. In Chapter 19, Richard Boisvert describes a beveled, bifacial knife from the *Jefferson VI* site in New Hampshire. He places it in a hypothetical reduction sequence for large, bifacial butchery and hide processing knives in the Northeast. Seasonally intensive procurement and processing of caribou hides could certainly warrant the use of these tools, and Boisvert's hypothetical production and maintenance sequence deserves evaluation with other lines of evidence (including usewear analysis). In **Chapter 20**, Mark Seeman and colleagues describe the fluted point assemblage from Nobles Pond in Ohio. They use a comparative sample of Clovis points and preforms to show that manufacturing failures produced and discarded on site are smaller than expected, which may represent an effort to conserve dwindling supplies of raw material far from a source. They waffle on whether the Nobles Pond points should be assigned to Clovis or Gainey, but I think Eren and colleagues (this volume) demonstrate that this may not be a very meaningful distinction based solely on point morphology.

Gingerich's discussion in **Chapter 21** places the volume's chapters in the wider context of North American Paleoindian studies and lays out future research directions that can help answer questions raised in the volume. Overall, this data-rich volume represents an important contribution to our understanding of Paleoindian settlement-subsistence behaviors, regional chronologies, and the placement of sites relative to particular landforms and salient environmental features. It certainly merits a place in any Paleoindian archaeologist's library.