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Introduction

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The physiographic unit known as the Southeastern Coastal Plain runs like a ribbon along the eastern seaboard of the Atlantic Ocean, joining the Gulf of Mexico for its western margin. Composed of unconsolidated sediments ultimately transported from the South Appalachians, the Coastal Plain bears evidence of numerous marine transgressions over the past several million years that left terraces of different ages and elevations all capped by late Quaternary cover sands. Within these sands lie artifacts from several millennia, ranging in age from the Last Glacial Maximum (LGM) and before to latest prehistory. The Coastal Plain with its seashore resources and immense spatially extensive wetland features, as well as the floodplains of major rivers originating from the mountains, provided the highest carrying capacity on the Atlantic Slope for human foragers due to the abundance of surface water. The extensive archaeological record of the Coastal Plain is made more comprehensible by the resulting natural abundance of plants and animals dependent upon wetland habitats and their margins.

Nearly geographically coextensive with this landform are Tertiary-age marine cherts occurring as outcrops of silicified limestones from south of Tampa Bay to the Santee River in South Carolina. These cherts provided high-quality tool stone, which was intensively exploited by prehistoric inhabitants throughout all time periods. Nature, as it were, not only provided abundant biotic resources for food and fiber but also provided the tool stone necessary for their extraction. While organic artifacts can be found in certain wetland sites such as in Florida (Dunbar 2016; Webb 2006), the bulk of the evidence available to archaeologists continues to be chipped stone technologies. The chapters in this volume show how archaeologists can derive anthropologically relevant information using these various lithic data sets.

Over the past 50,000 years, the Coastal Plain was in a real sense a stage on which a number of dramatic climatic and environmental changes took place accompanied by distinct human responses to these conditions. Except for the larger rivers that originate in the South Appalachians, no major physical barriers existed over a transect 1,000 km or more north and south to inhibit human interactions. To this end, two major cultural systems, first with the Late Pleistocene Clovis peoples, and later the early Holocene Early Archaic makers of notched points, show considerable cultural continuities and connections over the entire Coastal Plain. Understanding human decision making by past inhabitants throughout prehistory over this dynamic landscape is the ultimate goal of paleoanthropology.

The earliest evidence of human occupation to date would be that of the Topper site along the banks of the Savannah River in South Carolina (Goodyear 2005a). Here, examples of humanly manufactured stone artifacts have been found in Pleistocene deposits dating from about 50,000 to 25,000 radiocarbon years ago. As such, Topper would be the earliest known archaeological site in North America, rivaled only by the famous South American site of Pedra Furada in Brazil with comparably old dates (Boeda et al. 2013; Guidon and Delibrias 1986). In their chapter Goodyear and Sain present the results of recent analyses that have been conducted on the pre-Clovis lithic assemblages of Topper drawing on the master's thesis work of Megan King (2016) and the dissertation of Douglas Sain (Sain 2015). Topper appears to be a non-bifacial, core and flake technology dating prior to the LGM. A number of late glacial pre-Clovis sites dating from 16,000 to 12,000 radiocarbon years have been reported from the eastern seaboard, including Myles Point (Lowery et al. 2010), Cactus Hill (McAvoy and McAvoy 2015), and Page-Ladson (Dunbar 2016; Halligan et al. 2016). These sites are contemporary with before-Clovis sites in western North America (Gilbert et al. 2008; Waters et al. 2011) and South America (Boeda et al. 2013; Dillehay 2000).

In his chapter, Blaine Ensor presents an assemblage of lithic artifacts that are noticeably different from Holocene age stone technology typical of this area of the Southeast. Because they are characterized as relatively thick bifacially shaped discoidal cores, he refers to them as Levallois-like, to emphasize how different they are compared to the usually thinner Holocene age bifaces made in preparation for bifacial projectile points. While not recovered from closed stratigraphic contexts, they are highly weathered, similar to Paleoindian stone tools made from the Coastal Plain cherts so prone to weathering through time (Purdy 1981). Given the growing evidence of

pre-Clovis sites in the Americas, it seems prudent to pay attention to such weathered and technologically atypical assemblages, particularly in the event they are excavated in Pleistocene contexts.

When evaluating Pleistocene and early Holocene archaeological deposits on the Coastal Plain, refined excavation techniques and multiple analytic tools are needed. In their presentation of the ongoing work at the famous Old Vero site, C. Andrew Hemmings et al. (2014) illustrate the great care required in excavation for context documentation and the necessary roles of related disciplines such as soil morphology, ^{14}C chemistry, and faunal analysis. While excavations are still in progress, they are getting hints of pre-Clovis-age surfaces with potential human presence. Similarly, the chapter by Christopher Moore and his colleagues provides solid evidence of how the typically shallow sandy sites of the Coastal Plain can be studied with refined excavation methods to yield archaeostratigraphy and chronology with AMS radiocarbon dating and optically stimulated luminescence. They provide examples of stratified Coastal Plain sites buried in alluvium, colluvium, and aeolian deposits such as Carolina bays, and suggest that site burial processes are driven in part by penecontemporaneous hydrological and vegetation changes in response to periods of rapid climate change and ecosystem stress.

Even more challenging is the prospecting for and data recovery from possible Pleistocene-age sites now drowned by sea level rise. It is widely acknowledged that Florida was nearly twice its present size during the lowest sea levels of the LGM. Sea level reconstructions for the last 22,000 years are becoming available (Anderson and Bissett 2015; Harris et al. 2013), allowing prospecting by potential age and depth. The work of Harris et al. (2013) in the South Atlantic region, for example, would suggest that Clovis peoples would have had full access to the continental shelf, with the Atlantic Ocean breaching the shelf sometime after that. The mapping of ancient river channels, bedrock highs, and other formerly subaerial landscape features will hopefully provide specific targets for underwater archaeological surveys. Scott Harris' chapter herein reviews the potential for discovering sites on the South Atlantic shelf and beyond.

When considering the ice age of the Late Pleistocene, it is important to realize that even during the coldest period elsewhere in North America, the lower Southeast was not directly affected by glaciers as was the case farther north. Rather, it is better conceived as a chronological period meaning contemporary with the Wisconsin, the last major period of glaciation. During this time period paleontological and palynological studies have shown

that the climate was optimal for a great variety of plants and animals. The Late Pleistocene of the Southeast has been shown to exhibit disharmonious faunas (Lundelius et al. 1983), which included animal species native to the northern latitudes existing alongside more southern subtropical species (Webb 1981a). Likewise, a Late Pleistocene forest type described by Watts (1980) as cool, mesic, broadleaf hardwoods has been referred to as "no analogue," expressing its uniqueness to the period from 16,000 to 10,000 years ago. These phenomena have been brought together under the rubric of what Russell et al. (2009) refer to as a warm thermal enclave. They hypothesize that the Gulf Stream flowing close to the coasts of the Gulf of Mexico and the Atlantic Ocean thermally subsidized the Southeast, creating a more temperate climate. They argue that this enclave was in existence during the entire Rancholabrean period, for several thousand years before the LGM. Thus, these optimal climatic conditions prevailing for tens of thousands of years created highly desirable environments for early humans colonizing this part of North America. For the purposes of archaeology in searching for early Paleoamericans, the Southeast should have an exceptionally high potential for early human occupation and, hopefully, site discovery.

The end of the Late Pleistocene is marked by a dramatic reversion to ice age temperatures known as the Younger Dryas. At a time when the world was warming and glaciers melting, this reversion came on very suddenly in geological time scales (Alley 2000). Compared to previous stadials, it is almost freakish, considering how rapidly it occurred and compared to later Heinrich events. Two chapters (LeCompte and others and Kennett and others) deal with what is termed the Younger Dryas Boundary (YDB) with reference to an extraterrestrial impact or the YDB impact hypothesis and the potential effects on fauna, including human life. A Bayesian chronological analysis shows that from 23 stratigraphic sections and 354 dates from 12 countries, a remarkable synchronicity exists with the event with a modeled YDB age range of 12,835–12,735 cal B.P. at 95 percent probability (Kennett et al. 2015). This time frame would be contemporary with Clovis people, who disappeared from the archaeological record about this time, as well as mammoths and mastodons. The demise of Clovis culture and the extinction of the last of the Pleistocene megafauna have long posed a mystery to paleontologists and archaeologists alike. While they are still controversial to some, a variety of other independent researchers at different sites continue to find the diagnostic impact markers at that boundary. To these can be added recent evidence for a widespread platinum (Pt) anomaly at the Younger Dryas onset across the North American continent (Moore et al.

2017). The controversy surrounding such a dramatic event will no doubt continue in the near future. One comprehensive study of the frequency of post-Clovis projectile points for the Southeast has identified a sharp drop in points as well as radiocarbon dates (Anderson et al. 2011), suggesting some kind of demographic reorganization and/or collapse.

In Smallwood and others' chapter, treatment is given to the traditional Paleoindian cultures using projectile point data collected from South Carolina. With Clovis as a point of departure, then moving through time with non-Clovis and presumably post-Clovis projectile points, and ending with Dalton conceived as the end of the Paleoindian lanceolates, significant differences can be seen in raw material selection and landscape usage over some 1,500 years. The role of sea level rise is considered, as it would have removed much of the lower Coastal Plain, with its prime biotic resources. Clovis is seen as focusing on the Coastal Plain with their distinctive use of Coastal Plain cherts as recognized from the extensive work done at the quarry-related sites of Topper and Big Pine Tree (Goodyear 1999; Smallwood 2010; Smallwood et al. 2013). A parallel study for the state of Georgia (Smallwood et al. 2015) revealed a similar pattern for Clovis. The Clovis use of the Coastal Plain, while not exclusively so, has been summarized as the Allendale–Brier Creek Clovis Complex (Goodyear 2018), providing some insights into their stone tool technologies and settlement systems beyond just points.

The use of raw material types and the plotting of degree of usage through time is coming of age in much of the Southeastern Coastal Plain. The landmark work of Sam Upchurch (Upchurch et al. 1982a) for Florida cherts, organized by the concept of quarry clusters throughout that state, has been updated in recent years as presented by Robert Austin and others in their chapter. The similarly conceived work of Upchurch in the central Savannah River region of the Allendale County, South Carolina, chert quarries and the adjacent counties in southeastern Georgia (Upchurch 1984b), has provided a baseline petrologic study of the northern extension of these Tertiary-age marine cherts which begin south of Tampa Bay. The work of Daniel and Butler (1996) in the Uwharrie Mountain sources of North Carolina with the various metavolcanic tool stones, updated by Steponaitis et al. (2006), provide more geographic information on the sources and dispersion of time sensitive tools so critical to mapping foraging ranges through time.

Three chapters examine the Early Archaic of the Coastal Plain with data sets spanning from Florida to South Carolina. The chapters by David

Thulman and Kara Bridgman Sweeney look at notched points on the basis of haft attributes over space rather than just by traditional cultural historic types. Thulman finds significant patterning using geometric morphometrics, which is concerned with shapes rather than size and angle measurements. He emphasizes that craft production takes place in social contexts, which should result in discernible patterning amongst hafted bifaces. Using this new methodology, he is able to detect what he regards as socially produced patterning in Bolen points from adjacent river valleys in Florida. Bridgman Sweeney takes a geographically broad perspective based on her dissertation work (Bridgman Sweeney 2013), using data from a transect up the Coastal Plain from Tampa Bay to the southern Coastal Plain of South Carolina. She reworks her dissertation data using social network analysis theory, revealing what may be numerous overlapping scales of interaction. Her concept of "Bandscapes" is provocative, in that it explicitly brings into focus the social reality of multiple contemporary human groups as part of the "environment," rather than just the natural environment in the more ecological sense. The chapter by Wilkinson looks at the Early Archaic at yet another scale: that of the nature of sites located in the extensive inter-riverine zones between the major rivers such as the Savannah and the Santee. Previous formulations of the Early Archaic in the South Atlantic Slope area, such as that of Anderson and Hanson (1988), concentrated on settlement analysis and ultimately bands and macrobands centered around habitation sites on the major rivers. Unlike previous analyses, Wilkinson's analysis utilizes Early Archaic stone tools besides just points and provides our first insights into activities in the inter-riverine zones. He takes advantage of progress now realized in lithic raw material types and sources for this part of South Carolina, revealing significant patterning in local versus exotic types, which has implications for possible band interactions.

The final chapters, by David Anderson and Joe Schuldenrein, are valuable contributions to the volume based on their nearly 40 years of work in the Southeast in both Paleoindian and Early Archaic archaeology. This includes surveys and excavations of important sites such as those in the Savannah River basin and beyond with their early use of geoarchaeological approaches to site discovery and environmental reconstruction. Anderson was a pioneer in synthesizing Paleoindian and Early Archaic archaeology in the Southeast (Anderson and Sassaman 1996), which he continues to this day (Anderson and Sassaman 2012). Schuldenrein in his chapter reviews the progress of geoarchaeology from his work in the Southeast and the East

as well as from an Old World perspective. Both of these chapters should have a beneficial effect as archaeologists continue to probe into the often rare and at times ephemeral sites that could be described as early human archaeology.

The research conducted for these chapters spans a period of over 50 years, with some projects still under way. In the ensuing decades, major changes have been realized, ranging from the discovery of pre-Clovis sites to the application of optically stimulated luminescence dating of sandy sediments often bereft of charcoal for radiocarbon dating. Enough statewide Paleoindian point databases are now available to begin reconstructing settlement systems, and coupled with the identification of lithic raw materials and their sources, they are enabling the mapping of foraging ranges and possible evidence for exchange. The increasing capability of offshore surveying technology is giving rise to the expectation that archaeologists and marine geologists alike will soon be finding prehistoric sites now inundated on the continental shelf. Other major issues, such as the sudden demise of the Clovis technoculture and the Pleistocene megafauna, along with the recognition of the mysterious "Middle Paleoindian" period, should indicate that more fascinating research developments are on the way. Hopefully, this volume will provide some consolidation of knowledge gained thus far and serve as a point of departure to guide future inquiry.