

Research at Site 7K-F-11 and the adjacent portions of Site 7K-F-169 (below referred to collectively as Site 7K-F-11/169) was guided in part by previously completed large-scale data recovery projects at similar sites nearby, most also associated with the SR 1 project. These include investigations at the Hickory Bluff Site (Petraglia et al. 2002) and the Puncheon Run Site (LeeDecker et al. 2005), as well as earlier studies at Blueberry Hill Site, Carey Farm, Leipzig, Pollack, Snapp, and others. Unfinalized reports on the Frederic Lodge and associated sites also suggested specific research foci.

In conjunction with these sources, ADM's and A&HC's fieldwork results suggested avenues of research that would also be productive. Research issues described below include chronology, subsistence, site function, settlement patterns, site formation, and socio-ideological. In addition, the unexpected high frequency of historic artifacts found in the Phase III fieldwork indicated the need to re-evaluate historic research issues.

*Chronology:* Collectively, the Phase I through Phase III excavations at Site 7K-F-11/169 produced a large artifact assemblage containing numerous chronologically diagnostic and potentially diagnostic artifacts. These included steatite vessel fragments dating to the early Woodland I period. Marcey Creek, Dames Quarter, and Selden Island ceramics were also found, from the middle Woodland I period. Clay tempered Colbourne and Hell Island ceramics of the late Woodland I were also prevalent. Townsend and Killens ceramics of the Woodland II were found in the Phase I/II testing during the Phase III fieldwork. Site chronology issues were addressed by a diverse, inter-related strategy employing radiocarbon dating and categorization of chronologically diagnostic artifacts.

The 67 projectile points discovered in the Phase III field investigations, along with the 15 points from Phase I/II testing, had the potential to offer important chronological information. Prevalent point types found during the Phase III excavations included Lamoka, Poplar Island, and a variety of other narrow stemmed point types traditionally associated with the early Woodland I period, as well as broadspears of the traditional "Terminal Archaic" or "Transitional" subperiod. Also prevalent were contracting stemmed points similar to the Rossville type. These were also found at Carey Farm, Puncheon Run, and Hickory Bluff. Side-notched and Jack's Reef points, and a single triangular point, were also found during the Phase III excavations. During their Phase II survey, ADM found two contracting stemmed Rossville points, one side-notched point that they attributed to the Woodland I period, one small stemmed Lamoka point, one triangular point, and one Goose Creek Spike point, also of the late Woodland I period.

Collectively, the diagnostic materials suggest that occupation of Site 7K-F-11/169 may have occurred primarily during the early Woodland I and middle Woodland I periods. This is suggested by the presence of steatite artifacts and the prevalence of middle Woodland I ceramics and narrow bladed stemmed projectile points. Although only three Woodland II triangular points were found, Woodland II period ceramics were prevalent, suggesting that a substantial Woodland II period occupation was present as well. Chronological research issues of interest thus included further clarification of the chronology of site occupation, determining whether site

components were spatially discreet, and whether differences in site function during different periods of occupation were discernable. Additionally, associations of diagnostic and potentially diagnostic artifact types in dated contexts might further clarify their ages and periods of use.

*Lithic Raw Material Procurement and Processing:* Like Hickory Bluff and Puncheon Run, the lithic assemblage from Site 7K-F-11/169 is dominated by jasper, quartzite, and quartz. In this respect, the site differs from other sites in the region with high argillite percentages. The use of local pebble materials reflects site function as a cyclically visited procurement camp. The sites with high percentages of argillite may have had ritual or political functions, perhaps relating to mortuary practices and/or trade and exchange.

Because of the prevalence of local raw materials at the site, the reduction sequence is expected to reflect a relatively expedient strategy that emphasizes flake tools. Because of the varying flaking characteristics of jasper versus quartzite, jasper may have been preferred for biface production while quartzite was more often used to produce expedient flake tools. Similarly, evidence from the mid-Atlantic in general suggests that jasper and other exotics were preferred lithic raw materials during the period when broadspears were a prevalent point type. Reduction sequence analysis will address these and other similar issues relating to variability in lithic raw material preferences and processing, both within major chronological periods and between them.

*Subsistence:* Early Woodland I people are thought to have adapted to stabilized sea levels and the presence of abundant resources along coastal rivers. Anadromous fish, shellfish, seeds (wild rice, etc.), and roots (Tuckahoe) have all been suggested as important food resources. Terrestrial game was almost certainly important as well. Cultigens such as maize, beans, sunflowers, and other seeds likely entered the scene at some point, but evidence relating to this is limited.

Data relating to subsistence issues were limited at Hickory Bluff and Puncheon Run. Preservation of floral and faunal remains is typically poor in regional soils. Most botanical remains obtained from flotation feature fill were wood charcoal fragments; hickory nut shell fragments were the most notable exception. Protein residue analysis was more productive, with positive matches identified to sera of several types of fish, evidence for aquatic resource use.

Considering the paucity of direct evidence relating to subsistence behavior in previous studies, relevant subsistence research issues for this site are correspondingly broad, and include assessing the relative importance of coastal/estuarine as compared to inland resources in the diet, the types and amounts of hunted animals, the date of introduction and relative importance of cultigens, etc. The degree to which these types of issues can be addressed depends of whether or not relevant data were recovered during excavation or can be acquired through botanical analysis of macrofloral and flotation samples, protein residue analysis, starch grain analysis, and the like. Other types of analysis are less likely to be productive. For example, few pollen grains are preserved in archaeological soils at open sites in eastern North America and phytolith analysis depends largely on the presence of actual plant leaf and stem parts on site, which is unlikely given the delicacy of these remains.

*Settlement Patterns:* Over the past two decades, sites similar to Site 7K-F-11/169 have been interpreted to be neither macroband nor microband base camps, but areas to which small groups

came repeatedly for short visits. Storage and hearth features were used in resource procurement/processing, and feature types included storage pits, FRC concentrations, and chipping clusters. The topic of pit houses is important in Delaware archaeology, summarized in LeeDecker et al. (2005), since remnant outlines of the semi-subterranean dwellings can resemble those caused by natural tree throws. Few such features were considered bona fide pit houses at Hickory Bluff and virtually none were so identified at Puncheon Run. Many features of this type were found at Site 7K-F-11/169. Based on field observations, all were tentatively identified as tree throws, not semi-subterranean dwellings. Seasonality of occupation has been hard to assess because of the limitations of subsistence evidence suggested above.

Based on investigations to-date, Site 7K-F-11/169 has characteristics that suggest a role in the regional settlement pattern system similar to that of Puncheon Run, including a large (4.5 ha) artifact scatter and features representing 4,000 years of occupation. Site 7K-F-11/169 yielded numerous medium sized pits and various FCR concentrations. The cylindrical pit features at the site resemble the “silos” found at Puncheon Run. With the possible exception of features identified as Areas of Intense Activity (AIAs, see below Section 6.1), no unambiguous evidence of shelters was found. At Puncheon Run, FCR clusters were considered to likely be the remains of hearths and the pit features to represent various kinds of storage and processing features. It was hypothesized that the hearths were the focal points of sequential camp occupations, with pit features arrayed around them in various patterns.

The Puncheon Run and Hickory Bluff studies highlighted the difficulty at such sites of identifying discrete occupation events. However, spatial patterning was discernable in the data. At Hickory Bluff, artifact clusters occurred in elliptical patterns around concentrations of FCR. Field investigations suggested that similar patterning was present at Site 7K-F-11/169. An area in Trench 2 contained abraders and jasper micro tools. An area in Trench 4 contained cylindrical pit features, yet relatively few artifacts. The eastern portion of Trench 5 contained a cylindrical pit feature and possibly an isolated Woodland II component. The western portion of Trench 5 contained a feature cluster and possibly an isolated early Woodland I component as well.

*Site Formation:* Based on geomorphological fieldwork, the site surface appeared to have been relatively stable throughout the Holocene. On the other hand, bioturbation and plowing displaced materials vertically and horizontally. Site formation research issues include Late Quaternary landscape evolution and surface stability, and feature formation and function. An important issue involves confirming the hypothesis that the large pit features described above were indeed caused by non-cultural tree throws.

*Political, Social, Religious, and Symbolic Research Issues:* The Puncheon Run study suggested that the largest groups that occupied the site were on the order of 30 people, perhaps representing several extended families. Perhaps smaller work groups also visited the site for specific purposes. The Hickory Bluff researchers suggested the possibility that some work groups may have been divided on the basis of age and/or sex. However, given the difficulty of isolating separate episodes of site occupation, such conclusions are tenuous at best. Nevertheless, innovative approaches to “going beyond” technological adaptations and their relationships to site function and settlement patterns remain an important research goal.

*Historic Archaeological Research Issues:* ADM's previous Phase II survey recovered a scatter of historic artifacts throughout the Area 1. The assemblage included notable amounts of redware, creamware and pearlware ceramics. Phase III excavations in Area 1 yielded over 8,000 historic artifacts, substantially in excess of the amount expected based on the Phase II field results. The Phase III historic artifact assemblage was concentrated in the plowzone in test units along SR 12.

Pearlware was the earliest ceramic type noted in the field, suggesting an occupation beginning in the early nineteenth century. Historic artifact frequencies decreased markedly to the east of SR 12, suggesting that the materials were not field scatter from the Soulie Gray farmstead. The only historic features found were post molds and amorphous trenches. Informants indicated the area was a fenced cattle paddock in the mid-twentieth century. This could suggest that nineteenth century refuse disposal along what is now SR 12 was scattered and dispersed at some later point in time. Alternatively, tenant farmers or people of low economic status may have occupied the area in structures that did not appear on historic maps.

Research on the historic component at the site will focus on determining the duration and nature of the use of this portion of the site, and its possible relationship, if any, to the Soulie Gray farmstead. For instance, in the period after 1830, central Delaware saw a substantial influx of free African Americans, some of whom might have lived on the periphery of settlements like Frederica or worked on farmsteads such as Soulie Gray.

**ADDITIONAL INFORMATION COMMENTS 22 through 23**