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**INTENSIVE ARCHAEOLOGICAL SURVEY OF
THE F/H SURFACE ENHANCEMENT PROJECT AREA,
SAVANNAH RIVER SITE, AIKEN AND BARNWELL COUNTIES,
SOUTH CAROLINA**

**Kenneth E. Sassaman
J. Christopher Gillam**

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**SAVANNAH RIVER ARCHAEOLOGICAL RESEARCH PROGRAM
SOUTH CAROLINA INSTITUTE OF ARCHAEOLOGY AND ANTHROPOLOGY
UNIVERSITY OF SOUTH CAROLINA**

Technical Report Series Number 18

August 1993

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MANAGEMENT SUMMARY

Twelve archaeological sites and four artifact occurrences were located by intensive survey of two tracts of land for the F and H Surface Enhancement Project on the Savannah River Site, Aiken and Barnwell Counties, South Carolina. Fieldwork in the 480-acre project area included surface reconnaissance of 3.6 linear kilometers of transects, 140 shovel tests along 4.2 linear kilometers of transects, an additional 162 shovel tests at sites and occurrences, and the excavation of six 1x2 m test units. All but one of the sites contained artifacts of the prehistoric era; the twelfth site consists of the remains of a twentieth-century home place. The historic site and six of the prehistoric sites consist of limited and/or disturbed contexts of archaeological deposits that have little research potential and are therefore considered ineligible for nomination to the National Register of Historic Places (NRHP). The remaining five sites have sufficient content and integrity to yield information important to ongoing investigations into upland site use. These sites (38AK146, 38AK535, 38AK539, 38AK541, and 38AK543) are thus deemed eligible for nomination to the NRHP and the Savannah River Archaeological Research Program (SRARP) recommends that they be preserved through avoidance or data recovery.

ACKNOWLEDGEMENTS

Senior Geotechnical Engineer Scott R. McMullin is gratefully acknowledged for his cooperation and assistance with this project. Other engineers working on related F and H Seepage Basin projects, especially Scott A. Dendler and Michael D. McHood, are also thanked for providing information important to the planning of this survey. Health Protection Inspector Janice Breedlove provided a welcomed sweep of the project area to prevent unnecessary health risks. Other administrative and technical support was provided by SRARP Program Managers Mark J. Brooks and Richard D. Brooks, and DOE-SR Technical Representative to the Contracting Officer Andrew Grainger.

Field and laboratory work for this project was conducted by the able crew of Buddy Wingard, Tina Monaco, and Chris Gillam. Gillam was also responsible for supervising the fieldcrew, drawing all field maps, conducting secondary analysis, and drafting site maps and other figures on the computer.

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CHAPTER 1 INTRODUCTION

Described in this report are the results of an intensive archaeological survey of the F/H Surface Enhancement Project Area on the United States Department of Energy's Savannah River Site (SRS) in Aiken and Barnwell Counties, South Carolina (Figure 1). Pedestrian and subsurface techniques of archaeological survey were conducted on two project tracts: the 200-acre F Area Seepage Basin Tract, and the 280-acre H Area Seepage Basin Tract. Both of these tracts contain hazardous waste repositories that precluded complete survey coverage. However, the areas of greatest archaeological sensitivity, as determined by the Resource Management Plan for the SRS (SRARP 1989), were cleared by SRS Health Protection and made fully accessible for archaeological survey.

The original surface enhancement project design called for extensive land alteration, including the areas of greatest archaeological sensitivity. Subsequent amendments to the design eliminated threats to much of the area. Nevertheless, comprehensive archaeological surveys of the project tracts were conducted in anticipation of future site use requests.

Twelve archaeological sites and four occurrences of prehistoric artifacts were located and evaluated in the project tracts (Figure 2). All but one of the sites yielded Woodland period pottery (ca. 3000-1000 years before present [B.P.]); one site also contained evidence for a ceramic Late Archaic component (ca. 4000-3000 B.P.), and a Mississippian component (ca. 13th-14th centuries). Some of these sites have been disturbed by plowing, logging, and rights-of-way, but five sites (38AK146, 38AK535, 38AK539, 38AK541, 38AK543) contain preserved prehistoric components with sufficient research potential to be eligible for nomination to the National Register of Historic Places. One additional site (38AK537) is the remains of a twentieth-century homeplace. The site has been severely disturbed by road and well construction, and it presently exhibits no subsurface integrity.

This report documents all aspects of the field and laboratory methods and results of the project. The results are compared to survey efforts in other parts of the Aiken Plateau to examine how prehistoric land use within the diminutive Fourmile Branch watershed differed from land use in the larger tributary basins of the Savannah River Site.

Project Background

Contamination to groundwater in the vicinity of the F and H Seepage Basins on the Savannah River Site requires action to mitigate any potential dangers to the local environment. An effort to minimize surface water infiltration and increase vegetational uptake of groundwater was brought to the attention of Savannah River Archaeological Research Program (SRARP) staff in early 1993. Headed by Senior Geotechnical Engineer Scott R. McMullin, the Surface Enhancement Task Team recommended modifications to surface topography that had some potential to adversely affect archaeological resources. Modifications that included surface smoothing and leveling, erosion control, and wetland protection were not specified as to exact location and scale in the preliminary design, but the SRARP initiated archaeological survey in late April, 1993 with the intent of being as inclusive as possible.

Before survey commenced, SRS Health Protection (HP) personnel were contacted to review potential health risks in the project area. HP Inspector Janice Breedlove met the survey crew in the field on March 30, 1993 to scan soil from shovel tests for the

Figure 1. Location of project area within Savannah River Site, South Carolina.

Figure 2. Location of project area sites on USGS 7.5 topographic quad New Ellenton, SW.

presence of radioactive material. Breedlove informed the crew about contamination in a deep aquifer that was the target of the remediation project. She indicated that shallow soils exposed in shovel tests would not be affected, with the possible exception of low-lying wet areas, such as the Fourmile Branch floodplain, and a small area to the immediate east of the H Area basins. Scans of several shovel tests in well-drained areas of the project tracts yielded no evidence of contamination.

A Preliminary Site Use Application (SU Log No. 754) for the F/H Seepage Basins Groundwater Remediation was issued on May 18, 1993. The project area boundaries specified in the application captured all of the project area earmarked for surface enhancement by McMullin and his team (Figure 3 and 4). The application called for "selective localized grading and smoothing of the surface," but it provided no further specifications. The SRARP responded on May 21 with notification that survey in the area was underway. The survey effort continued through June 2, 1993. Shortly thereafter, SRARP staff consulted with McMullin about refinements to the surface enhancement design. He indicated that surface alterations had been scaled-back to include only minor channelization of surface runoff in the areas of greatest archaeological sensitivity. Archaeological site locations in the project area were compared to McMullin's detailed plans to reveal no direct impacts to significant sites. To ensure that these sites were avoided, SRARP staff agreed to flag site boundaries and to provide McMullin with coordinates from a Global Positioning System (GPS) for his planning maps. GPS readings were provided by U.S. Forest Service staff stationed at the SRS.

Figure 3. Project area for the F Area Seepage Basin Groundwater Remediation Project.

Figure 4. Project area for the H Area Seepage Basin Groundwater Remediation Project.

A second, independent preliminary site use application arrived at the SRARP offices the first week of June 1993. Initiated by Site Geotechnical Engineer Michael D. McHood, the application (SU Log No. 764) was for soil infiltration testing, essentially small-bore auger tests, in and around the F and H Area seepage basins. McHood visited the SRARP facility that next week to review project maps. The ongoing Groundwater Remediation Site Use encompassed most of McHood's project area, so a separate archaeological survey was not required. Area not encompassed by the Groundwater Remediation Site Use was checked for recorded sites and for historic properties on 1951 aerial photographs, but none was found.

Project Area

The F/H Seepage Basin project area for surface enhancement is divided into two tracts, both located along Fourmile Branch in the Aiken Plateau. The F Area Seepage Basin Tract (henceforth F Tract) is approximately 200 acres, and the H Area Seepage Basin Tract (henceforth H Tract) is approximately 280 acres. Both tracts occupy upland ridge slopes and terrace formations, each with about one kilometer frontage along the Fourmile Branch floodplain. Due to fluvial dynamics, the north or west margins of

Aiken Plateau watercourses consist of gently sloping terraces and wide, swampy bottoms, whereas the south or east margins have narrow floodplains and steep cutbanks. Situated on the north side of Fourmile Branch, the project area exhibits relatively gentle ridge slopes of 3-4 percent and a proportionately wider floodplain than its southern counterpart. A Rank 1 stream forms the eastern boundary of the H Tract; other minor stream stems are located in the project area along the terrace edge of Fourmile Branch.

Surface elevations within the project area range from 61-88 m (200-290 ft) above mean sea level. Well-drained sandy soils of the Dothan series formed on the higher ridge slopes of the project area (Rogers 1990). These upslope areas contain the seepage basins of each tract. The surrounding areas of the basins have been modified for transportation and erosion control. The soils here are described as Udorthents, spoil from excavated areas. At elevations less than about 240 feet the land is largely undisturbed except for dirt roads in both tracts and a transmission line in the F Tract. Well-drained sandy soils of the Vaucluse-Ailey, Wagram, and Blanton series dominate the gentle terrace slopes, while poorly drained sands of the Pickney series are located in the Fourmile Branch floodplain. The frequently flooded low terraces of the F Tract also support Fluvaquent soils.

When the Atomic Energy Commission initiated construction of the SRS in 1951, much of the project area was in agricultural production. Land-use maps based on 1951 aerial photographs of the area are provided in Figures 5 and 6. About half of the F Tract was agricultural, whereas three-quarters or more of the H Tract was farmed. Wooded portions in both tracts are found along the floodplain terrace; in addition, the F Tract shows woods across all land less than 250 ft in elevation. With one exception, remnants of twentieth-century farmsteads on the tracts were destroyed by seepage basin construction. The exception, site 38AK537, is discussed in full in Chapter 4 of this report.

As indicated above, much of the project area has been modified for seepage containment. As shown in Figures 7 and 8, the unforested portions of the project area have been largely disturbed, as have portions of the adjacent wooded areas. The tracts are otherwise in pine plantations of various ages, and small stands of mixed hardwoods are located along the floodplain margin. By and large, the terraces immediate adjacent to the floodplain are the only completely unaffected portions of the project tracts. Archaeological survey was accordingly focused on these areas.

Despite past and ongoing land-use practices in the project area, there remains good potential for archaeological resources on the low-lying terraces where modern construction and timbering has been inconsequential. The potential for significant resources is greatest at locations overlooking Fourmile Branch, a Rank 3 stream that drains the lower portion of the Aiken Plateau. In Chapter 2, an environmental and archaeological background to the Aiken Plateau is provided as a basis for evaluating the significance of sites in the project area.

Synopsis of Results

Intensive archaeological survey in the proposed locations for F/H Surface Enhancements was conducted on 15 days between April 30, 1993 and June 2, 1993. Fieldwork included surface reconnaissance of 3.6 linear kilometers of transects, 140 shovel tests along 4.2 linear kilometers of transects, an additional 162 shovel tests at sites and occurrences, and the excavation of six 1x2 m test units. Three prehistoric sites were recorded in the project area prior to intensive survey. One of the recorded sites could not be relocated. Nine new prehistoric sites and one historic site were discovered and tested.

Figure 5. Land-use in 1951 in the F Tract project area.

Figure 6. Land-use in 1951 in the H Tract project area.

The historic site and six of the prehistoric sites consist of limited and/or disturbed contexts of archaeological deposits that have little research potential. The remaining five sites exhibit sufficient content and integrity to yield information important to ongoing studies of prehistoric land-use in the Aiken Plateau. These sites are thus eligible for nomination to the National Register of Historic Places, and the SRARP recommends that adverse impacts to these sites be mitigated through avoidance or data recovery.

Archaeological and environmental contexts for the project are provided in Chapter 2. Survey methods are described in Chapter 3, and the results of survey reported in Chapter 4. The results are combined with previous knowledge of Aiken Plateau settlement in Chapter 5 to make recommendations about the significance of sites in the project area.

Figure 7. Current land-use in the F Tract project area.

Figure 8. Current land-use in the H Tract project area.

CHAPTER 2 ARCHAEOLOGICAL AND ENVIRONMENTAL CONTEXTS

Introduction

Comprehensive reviews of the environment and culture-history of the Upper Coastal Plain are provided in the recent syntheses of archaeological investigations on the Savannah River Site (SRS) (Brooks and Crass 1991; Sassaman et al. 1990). This chapter is not intended to duplicate these works, but rather to provide a project-specific context for the design and implementation of survey strategy and as a foundation for evaluating the results of survey. Much of this chapter is taken directly from a recent survey report for the nearby Site R Sanitary Landfill (Sassaman et al. 1992). The present effort builds upon this previous work to understand prehistoric land-use in the Fourmile Branch watershed.

Environment and Prehistoric Settlement Patterns

Situated in the Upper Coastal Plain of South Carolina, the SRS encompasses the watersheds of several streams that flow southwesterly into the Savannah River. The project area lies at the upper reaches of Fourmile Branch, one of the smaller tributaries within the SRS.

Ranging in elevation from 24-122 m (80 to 400 feet) above mean sea level (amsl), the physiography of the SRS is comprised of two major components: the Aiken Plateau and the alluvial terraces of the Savannah River (Figure 9). The Aiken Plateau is a dissected sandy plain situated between the Savannah and Congaree Rivers in the Upper Coastal Plain of South Carolina. Its sandy sediments dominate the SRS landscape and range in elevation from 76-122 m (250 to 400 ft) amsl. The alluvial terraces of the Savannah River occur below the 76 m elevation level. The project area lies just north of the interface between the southern boundary of the Aiken Plateau and the northern limit of the oldest alluvial terrace.

Specific topography of the SRS is the combined result of structural elements, ancient marine processes, and more recent fluvial dissection. The major channels of tributaries follow fault lines and marine features, but their numerous feeder streams in unconsolidated sediments lend a great deal of topographic relief to the upland sandhills. Such formations in the Aiken Plateau are particularly sharp along the margins of Upper Three Runs and Lower Three Runs creeks, the area's two largest tributaries. Exposures of quartz cobbles, orthoquartzite and low-grade chert are found in the steep cut banks of these streams. These resources were exploited prehistorically by groups that occupied nearby ridge nose sites during the Early and Middle Woodland periods (Sassaman 1991, 1992a).

Interfluvial ridges of the Aiken Plateau are characterized by relatively xeric vegetation dominated by pine (Shelford 1963:86-87). More mesic communities with abundant oak are found on terminal ridgenoses and slopes adjacent to active tributary stems (Barry 1980:97-116; Hanson et al. 1981:31). Major tributary streams in the Aiken Plateau, such as Upper Three Runs, have formed broad floodplains which support hydric flora in areas which are regularly flooded, as well as diverse mesic communities along floodplain margins and terraces. Thus, the topographic gradients of the Aiken Plateau created by tributary dissection support vegetative gradients comprised of xeric, mesic and hydric communities (Hanson et al. 1981:28-36; Langley and Marter 1973; Whipple 1978; Whipple et al. 1981). In the vicinity of the study area, this topographic gradient is not as marked as it is along Upper Three Runs Creek, nor is there as great a floodplain zone.

Figure 9. Physiography of the Savannah River Site area, showing location of project area.

Like many other locations in the Aiken Plateau, the prehistoric food resource potential of the project area depended on its degree of fluvial dissection. Beginning with spring-fed tributary stems that dissect the sandhills, and moving downslope, resource potential improves with the gradient increase in moisture and soil productivity. Within this zone of dissection, oak mast is especially dense and productive. This resource, particularly the red oak group, was undoubtedly important to deer and humans alike. Noting this, Hanson proposed that the sandhills was targeted by humans for exploitation during the late fall and early winter—seasons during which deer and acorn were most available (Hanson et al. 1981:42). Because water was the primary limiting factor over much of this zone, however, Hanson predicted that residential sites were positioned on the mesic terraces of tributaries, locations from which upland resource procurement trips were launched.

Archaeological investigations through the late 1980s on the SRS tended to confirm Hanson's settlement model, as did numerous others surveys elsewhere in the Georgia and South Carolina sandhills province (e.g., Braley 1992; Braley and Price 1991, King and Braley 1992). Not until 1987, when the SRARP had the opportunity to excavate upland ridgenose sites along Upper Three Runs Creek, did it become apparent that sites typically regarded as "lithic and ceramic scatters" contained evidence for seasonal or multi-seasonal habitation by small groups (Sassaman 1987, 1989, 1991, 1992a). Enabling this revelation were large-scale hand-excavated blocks from which piece-plotted artifact data were generated to infer patterns of site use. Garnered from these data are evidence for structures, cooking hearths, refuse disposal areas, and lithic workshops. In addition, analyses of lithic assemblages showed that by 3000 B.P., inhabitants of upland sites began to exploit local sources of low-grade raw material and to recycle the scavenged refuse of their transient predecessors (Sassaman and Brooks 1990).

Combined with the results of survey throughout the SRS, excavation results from sites in the Aiken Plateau provide sufficient data to generalize about changing patterns of upland site use. From this work we have found nothing to alter Hanson's model as it pertains to the Early and Middle Archaic Periods. Sites along the terraces of the Savannah River were preferred habitation loci, while upland sites in the Aiken Plateau appear to have been visited by hunters or other specialized task groups for only short periods of time.

By 4000 B.P., use of the Aiken Plateau included at least seasonal habitation at bluff margins overlooking tributaries and at the confluences of major stream stems. It is likely that riverine sites like Stallings Island and Lake Spring were occupied in the spring and summer by large groups. Furthermore, these groups apparently dispersed into the uplands for the fall and winter, provisioning their stays with large chert bifacial cores, soapstone cooking stones, and eventually pottery. Evidence for Late Archaic structures in the Aiken Plateau has not been found. However, recent excavations by Jerald Ledbetter (1991) at the headwaters of Brier Creek in Georgia have uncovered an isolated fourth millennium pithouse with an internal hearth. Presumably the cold weather structure for a small household, the pithouse may reflect the sort of dispersed occupations expected for tributaries of the Savannah River.

Year-round occupation of the Aiken Plateau appears to have commenced sometime after 3000 B.P. Sites of this period are numerous and are distributed widely along bluff margins and at springheads. Proportionately fewer sites are located along the terraces of the Savannah River; those that have been investigated have not produced evidence for utilization that exceeds Aiken Plateau habitations in scale or duration. By all indications, Early Woodland occupation of the Aiken Plateau was perennial (Sassaman 1992a).

Explanations for intensified upland site use remain a subject of considerable discussion. From his investigations of four sites on T₂ along Steel Creek, Brooks views fluvial responses to mid-Holocene sea level rise as a stimulus to increased upland resource potential (Brooks and Hanson 1987). He indicates that the onset of modern floodplain development in the Upper Coastal Plain of the Savannah River valley at ca. 4000 B.P. (Stevenson 1982) established the local fluvial base level that led to subsequent hydrologic changes in upland tributaries. This resulted in increased biomass of aquatic plant and animal resources as tributaries adjusted to a low-energy flow and mature floodplain regime. Importantly, these newly productive resources constituted spring and summer foods that were heretofore limited to mesic terrace zones below the Aiken Plateau. Given this new potential, along with attendant improvement in deer habitat, Brooks posits that upland utilization changed from fall resource procurement (i.e., deer and nuts) prior to ca. 4000 B.P., to seasonal habitation along upland tributaries during the Late Archaic period, leading eventually to multiseasonal habitation within upland zones by the Early Woodland period. Tests of these postulates with excavation data from four sites in the Steel Creek watershed were generally supportive (Brooks and Hanson 1987).

From a regional perspective, the results of recent excavations in the Upper Three Runs drainage bring to the fore an complementary model of intensified upland site use based on sociopolitical process. The regional picture reflects dramatic changes in the organization of populations that obviously had some bearing on the scale and duration of upland occupations. During the Late Archaic period (5000-3000 B.P.) subsistence production was at times organized at a multi-household or communal level at large riverine sites like Stallings Island (Clafin 1931). Interregional exchange, elaborate ceremonialism, and other spheres of social interaction were both precedents and products of intensified production, putting demands on the labor of individuals for nonsubsistence funds. Utilization of upland sites during this time appears to have been seasonal, probably late fall and winter, and facilitated by group dispersion. Both the direct obligations of seasonal aggregation and the indirect costs of nonsubsistence production to support these formations put a check on the scale and duration of upland site use. Households were unable to sustain long-term occupations in the uplands not because of an inadequate food or water supply, for indeed paleoenvironmental indications show that by 4000 B.P., resource productivity in the uplands was on the rise. Rather, the limits to upland occupation were dictated by the high costs of social reproduction, that is, by the time and energy it took to participate in what appear to have been relatively complex hunter-gatherer societies.

But the centripetal processes that held Late Archaic society together engendered counteracting centrifugal forces. Throughout this period upland occupations provided the opportunity for households to disengage from obligations that placed excessive demands on individual labor. Apparently, households began to exercise this option in increasing numbers after 3500 B.P., a time when the long distance reverberations of interregional exchange may have placed additional demands on production. We suspect that the dissolution of the large Late Archaic societies was catalyzed by the fissioning of households into the uplands. Ironically, the seasonal utilization of upland sites during the Late Archaic period predisposed the environment for long-term use by Early Woodland households, so we might say that Late Archaic sociopolitical organization sowed the seeds of its own transformation. More to the point, Early Woodland populations were able to occupy the upland sandhills year-round simply because they assumed social formations that placed little demand on production beyond the subsistence needs of households. For these small-scale, loosely integrated groups, sandhills sites in the Aiken Plateau provided all of the resources for their limited needs.

Thus far, evidence used to construct and refine upland settlement models have come chiefly from sites along Upper Three Runs Creek, the largest tributary on the SRS. Fourmile Branch is small by comparison, particularly in its floodplain size, and has witnessed virtually no archaeological excavation. Based on survey data alone, it appears that the Fourmile Branch watershed contains a nonrandom subset of prehistoric sites. For instance, sites along Fourmile Branch are among the highest in artifact density but lowest in diversity, owed in large measure to high frequencies of lithic debitage (Sassaman et al. 1990:257). Local sources of lithic raw material have never been located in the drainage, though it appears that quarrying and core reduction were the primary activities taking place. Other lines of evidence support a model of limited site function. Few of the Fourmile Branch sites are multicomponent, and settlement clusters in the watershed are limited to relatively short periods (Sassaman et al. 1990:281-296). It is curious, for example, that during the Late Archaic period when settlement expanded throughout much of the upland sandhills, the Fourmile Branch watershed was virtually abandoned (Sassaman et al. 1990:299). Appreciable use of the watershed returned in the Middle Woodland period, but this paled in comparison to settlement in Upper Three Runs Creek and other tributaries.

Thus, it appears at face value that Fourmile Branch sites may not duplicate the evidence for intensive uplands occupation found among sites along Upper Three Runs Creek. This is curious when one considers that small springheads and tributary stems within the Fourmile Branch watershed support the same vegetation as Upper Three Run sites, while providing better access to the Savannah River and its floodplain microenvironments. Obviously, the differences in settlement patterns and land-use cannot be explained by environmental factors alone, and we must look at the larger regional contexts in which prehistoric cultures were created, maintained, and transformed. Although these issues lie well beyond the scope of this project, the results of survey within the upland portion of Fourmile Branch provide an important comparison to upland surveys elsewhere, and help us to refine the models developed to explain the expanded use of upland sites after 4000 B.P.

The investigative emphasis on Upper Three Runs Creek sites in recent years has alleviated some of the river-centric bias of previous settlement models, but it too has been biased toward certain landforms and site types. Specifically, all of the sites excavated along Upper Three Runs Creek are located on the tops of bluffs that form its eastern margin. This bias is relevant when we consider the topographic variation on opposite sides of Aiken Plateau streams mentioned earlier. As depicted in Figure 10a, the gentle, low-lying terraces of the west side of Upper Three Runs stand in marked contrast to the steep cutbank and bluff topography of its eastern margin. The two areas differ with respect to distance to water, relative elevation, availability of flat land, and access to bottomland resources. Because extensive excavations at terrace sites in the area have not been undertaken, we do not know if these environmental differences affected prehistoric settlement, though we suspect they did. From casual observations we have speculated that use of the low-lying terraces increased during the Middle and Late Woodland periods, perhaps due to increased reliance on bottomland resources, or perhaps the demands of subsistence farming.

Intensive survey in the F/H project area adds to an body of survey data on site locations on the west and north terrace margins of Fourmile Branch. Many sites were discovered along this margin in the early 1980s in anticipation of a cooling pond project that never came to pass (Martin et al. 1985). Land on either side of a 6.5 km stretch of Fourmile Branch was surveyed up to the 210 ft amsl elevation level. The elevation limits precluded extensive coverage of the bluffs along the east margin, but thorough coverage of the west margin terrace produced evidence for over a dozen sites, nearly all with

Figure 10. Topographic cross-sections of (a) Upper Three Runs Creek north of the project area, (b) Fourmile Branch in the vicinity of the Site R Sanitary Landfill project area, (c) Fourmile Branch in the vicinity of the H Tract, and (d) Fourmile Branch in the vicinity of the F Tract.

Middle and Late Woodland components. A closer look at the bluff margins of Fourmile Branch was afforded in the recent survey of the Site R Sanitary Landfill (Sassaman et al. 1992). Several small sites with a variety of prehistoric components were found along a ridge nose overlooking Fourmile Branch. Density at these sites was not great, but they contained sufficient diversity to reflect small-scale habitation functions at least during the Woodland period.

How sites on either side of Fourmile Branch compare in size, density, and component representation is currently unknown. Like Upper Three Runs, the terraces and bluff margins differ topographically, but in the case of Fourmile Branch the differences are not great. A cross-section of the Site R Sanitary Landfill area (Figure 10b) shows a relatively symmetrical shape. Small shelf-like landforms on the terminal ridgenoses provide area for small-scale habitation, as do the facing terraces. Topographic contrasts are more pronounced in the F/H project area, but again these are much less marked than in Upper Three Runs Creek. Both the H Tract (Figure 10c) and F Tract (Figure 10d) have gentle terrace slopes compared to opposing cutbank bluffs. Apparently, inhabitable land was more plentiful on the terrace slopes, assuming, of course, that such land was well-drained.

The point to all of this comparison is to suggest that microtopographic variation in the Aiken Plateau may be an important consideration in understanding site locational variability. This issue is relevant at the local scale for its potential effects on site selection on either side of Fourmile Branch. It is likewise relevant at a larger scale regarding habitation in the Fourmile Branch watershed, as opposed to the Upper Three Runs Creek watershed. At an even larger scale, microtopographic considerations have relevance to variables such as coresident group size and group spacing that reflect sociopolitical organization. The results of intensive survey of the F/H project area will be directed toward such issues in Chapter 5 where data on site size, density, and diversity are compared to data from other Aiken Plateau localities.

Late Historic Period Settlement

The last few centuries of human occupation in the SRS area ran a course that in some respects paralleled prehistoric settlement. Early in the historic occupation of the SRS area, during the Colonial Period of the mid- to late eighteenth centuries, settlements were concentrated along the terraces overlooking the Savannah River and its major tributaries (Brooks and Crass 1991). These trends continued through the Antebellum Period of the nineteenth century, with gradual increases in the number of settlements and occupation of upland locations. Settlement in the SRS area burgeoned in the Postbellum/Modern Period, when there was a greater tendency for sites to be located in less desirable interriverine portions of the Aiken Plateau.

The settlement changes documented by Brooks and Crass (1991) are explained as a response to population increase, changing economic organization, and technological innovation. The riverine orientation of early settlement was strongly influenced by transportation options (i.e., the watercourses) and the demand for productive agricultural land. Because farming and other agricultural activities prior to the mid-nineteenth century remained small in scale, residences were located next to fields, hence the direct correlation between soils of riverine and tributary terraces and early historic settlements.

The increased use of upland sandhills locations after the Civil War coincided with agricultural intensification, including monocropping, and development of the tenant land tenure system. Prime farmland along the Savannah River and its tributaries continued to be used, but agricultural intensification led to increased use of less-productive land in the uplands. These locations were generally occupied by renters and sharecroppers who had little option for more productive land, nor the need or power to command hubs of transportation and information. In addition, the increased use of wells abated the need to locate residences near sources of running water. The result is that by the early twentieth century, many interriverine areas of the SRS previously ignored or underutilized were densely occupied by tenant farmers. Aerial photographs and maps dating to the 1940s and early 1950s document over 6000 late historic structures within the present-day boundaries of the SRS; the vast majority of these are located in interfluvial areas of the upland sandhills (Brooks and Crass 1991:79).

Thus, an increase in the use of upland sites during the historic period parallels the patterns observed during late prehistory. These patterns diverge, however, when we consider the specific locations of late historic period residences within the uplands. While prehistoric sites remained tied to locations of running water, late historic residences are often located 500 m or more from streams (Brooks and Crass 1991:64). In essence, these late historic sites are the only potentially significant archaeological resources located in the interriverine portions of the upland sandhills. As noted earlier, these sites are typically visible on aerial photographs of the SRS, and records of

residences occupied when the Atomic Energy Commission acquired the land in the early 1950s are maintained by the Department of Energy-Savannah River Field Office.

Tenant farms throughout the Southeastern United States continue to attract archaeological interest. The SRARP recently completed fieldwork to mitigate the adverse affects of proposed construction on three tenant/yeoman farms in the upland sandhills. Research efforts center on a series of methodological and theoretical propositions that will improve our ability to test and evaluate these ubiquitous resources. The results of this work are not yet available, though it appears that the significance of tenant sites will hinge on the ability to isolate discrete assemblages within sites that are representative of different activities, and to relate variation among these to social, economic, and political dimensions of consumer behavior. Research agendas from work elsewhere will no doubt be useful in evaluating tenant farms on the SRS. Irrespective of these, the assessment of research potential must first take into consideration information from land acquisition records and other documentation to identify unique or particularly interesting aspects of specific sites, as well as archaeological integrity as determined through survey and testing.

CHAPTER 3 SURVEY METHODS

The survey for the F and H Area Seepage Basin tracts was initiated with a review of previous survey efforts and sites in and around the project area. This chapter therefore begins with a summary of prior work. The results of previous work are then used to develop a survey design for the project. The specific field methods used in this study comprise the final section of this chapter.

Previous Survey

An initial reconnaissance of the Savannah River Site was undertaken between 1974 and 1977 by staff of the South Carolina Institute of Archaeology and Anthropology (Hanson et al. 1978). The reconnaissance entailed pedestrian survey of rights-of-way, including roads, railroad beds, and firebreaks, but no subsurface testing. Two of the 288 prehistoric sites discovered in this effort are located within the project area: 38AK146 was discovered in Road C-4 of the F Tract, and 38BR57 was discovered in a secondary road adjacent to Road 4 along the east margin of the H Tract (Figure 11). In addition, two nearby sites were located on the opposite side of Fourmile Branch: 38AK170 along Road C-4 several hundred meters south of the F Tract, and 38AK150 along an eroded borrow pit to the east of the F Tract.

Subsequent reconnaissance in and around the project area was undertaken as part of the SRS-wide inventory (Sassaman et al. 1990:69-76). Designed as a stratified, random sample, the survey entailed 40-percent coverage of the entire SRS for the purposes of developing a long-term management plan. To facilitate representative

Figure 11. Previously recorded sites in and around the F and H Tracts.

coverage in all microenvironments, the SRS was stratified by watershed and Patrol Index Units (PIUs). Each 4000x4000 ft PIU was coded for landform and stream rank to derive sampling strata, and from these a 40-percent sample was selected for survey. Fourmile Branch was the first watershed completed for the SRS-wide survey. The results of this pilot project led to refinements in survey design (Sassaman et al. 1990:73). Among them was a reduction in the size of strata by subdividing PIUs into quadrants (2000x2000 ft).

The PIU quadrants in and around the project area are depicted in Figure 12. Four PIUs in the project area vicinity were randomly selected for the 1978-79 survey of Fourmile Branch (J-11, K-12, K-14 and K-15), and two PIU quadrants (I-11 SE and I-12 SW) were selected as part of the Upper Three Runs survey. Other quadrants in the vicinity (all J-13 and J-14 quadrants, I-12 SE, I-13 SW, and I-13 SE) were classified "Excluded Area" because they contained existing waste and production facilities and were thus inaccessible.

Only one new site (38AK267) was located in the sample units that were surveyed (Figure 11). Field methods consisted chiefly of pedestrian survey of high visibility areas. Rake clearing and shovel testing supplemented surface inspection in some areas. As the results of more intensive survey show, the SRS-wide survey methods were inadequate to locate buried prehistoric remains.

Intensive survey in the vicinity of the project area was completed in 1984 in response to a proposal to flood Pen Branch and Fourmile Branch for cooling ponds (Martin et al. 1985). The proposed floodpool for Fourmile Branch extended to the F Tract, but it only implicated land lower than 210 ft amsl. The survey nevertheless included some investigation outside the impact zone. Sites located in the effort include

Figure 12. Patrol Index Unit quadrants in and around the F and H Tracts.

38AK416 in the F Tract and 38AK418 and 38AK419 to the west of the F Tract (Figure 11). Subsurface techniques were used to locate and define sites, but details about sampling interval and the location of shovel test transects are not provided in the report.

The subsurface site discovery techniques used in the Fourmile Cooling Pond survey proved to be inadequate when an intensive survey for the proposed Site R Landfill was conducted in 1991-1992 (Sassaman et al. 1992). Shovel test pits dug at 30-meter intervals along transects resulted in the discovery of several new prehistoric sites along the bluff margins of Fourmile Branch. Two of these sites (38AK455, 38AK456) are located in a PIU quadrant near the present project area (K-11 SE); the other sites are located in the adjacent westerly quadrants. In addition, a late historic farmstead (38AK453) was located on the upland ridge of the landfill site (Figure 11).

The Site R Landfill survey results are significant for two reasons. As noted in Chapter 2, the project represents the first serious attempt to locate sites along the upland bluff margins of Fourmile Branch. Second, subsurface testing back from the bluff margin was sufficient to dismiss the possibility of substantial prehistoric sites at locations more than 400 meters from Fourmile Branch. Whereas these results should not be construed to mean that no sites are to be found in interfluvial locations, doubts about the adequacy of interfluvial survey on the SRS (Sassaman et al. 1990:86-88) are beginning to be squelched.

Finally, two other Site-Use surveys were conducted in the vicinity of the F and H Tracts. Survey for Alternative New Waste Storage/Disposal Facilities (Brooks et al. 1986) included a 150-acre tract of land (L Site) northwest of F Tract. Two prehistoric sites were located by the survey, one of which (38AK424) is located in a quadrant adjacent to the F Tract (Figure 11). The other Site-Use request involved a 24-acre plot of land on the south side of Fourmile Branch that was earmarked for research by the Savannah River Ecology Lab (SREL). One prehistoric site (38BR682) was discovered through subsurface testing (Figure 11).

An inventory of the survey units, survey statuses, and recorded sites within the vicinity of the F and H Tracts is provided in Table 1. It bears repeating that much of the area depicted in Figures 11 and 12 was not accessible for survey. Also noteworthy is the fact that so few sites were found in the random quadrant survey of the SRS-Wide inventory. A number of factors account for the low site count. For one, the Fourmile Branch watershed was the first to be surveyed for the SRS-Wide inventory, so experience in finding buried sites was limited. Indeed, the techniques of site discovery were inadequate; much more subsurface testing was required. The subsequent special project or Site-Use surveys increasingly succeeded in locating buried terrace or bluff sites because of the increasing use of close-interval shovel testing. All this aside, the combined results of all survey efforts to date in the vicinity of the project area appear to support the notion that prehistoric use of the Fourmile Branch area paled in comparison to that in the Upper Three Runs drainage. The Site R Landfill project shows that site densities in Fourmile perhaps rival those in Upper Three Runs, but sites may be comparatively smaller and contain less diverse assemblages in the former context. As discussed in Chapter 2, the Fourmile Branch sites are dominated by Middle and Late Woodland components, with proportionally fewer Late Archaic and Early Woodland components than in Upper Three Runs drainage. The results of survey in the F and H Tracts can be used to further examine this seeming pattern of differential settlement.

Table 1. Survey and Site Information for Patrol Index Unit Quadrants (PIU Quads) in and around the Project Area.

PIU Quad	Survey Status	Project(s)	Sites Recorded
I-11 SE	Random; Special	SRS-Wide; L-Site	
I-12 SW	Random; Special	SRS-Wide; L-Site	38AK267, 38AK424
I-12 SE	Excluded Area		
I-13 SW	Excluded Area		
J-11 NE	Random; Special	SRS-Wide; Cooling Pond	38AK419
J-11 SE	Random; Special	SRS-Wide; Cooling Pond; Landfill	38AK418, 38AK455, 38AK456
J-12 NW	Not Surveyed		
J-12 NE	Not Surveyed		
J-12 SE	Special	Cooling Pond	38AK416
J-12 SW	Transect; Special	SRS Recon.; Cooling Pond	38AK146, 38AK170
J-13 NW	Excluded Area		
J-13 NE	Excluded Area		
J-13 SE	Excluded Area		
J-13 SW	Excluded Area		
J-14 NW	Excluded Area		
J-14 NE	Excluded Area		
J-14 SE	Excluded Area		
J-14 SW	Excluded Area		
J-15 NW	Not Surveyed		
J-15 SW	Not Surveyed		
K-11 NE	Special	Landfill	38AK453
K-12 NW	Random	SRS-Wide	
K-12 NE	Random	SRS-Wide	
K-13 NW	Not Surveyed		
K-13 NE	Not Surveyed		
K-13 SE	Special	SREL Research	38BR682
K-13 SW	Not Surveyed		
K-14 NW	Transect; Random	SRS Recon.; SRS-Wide	38BR57
K-14 NE	Random	SRS-Wide	
K-14 SE	Random	SRS-Wide	
K-14 SW	Random	SRS-Wide	
K-15 NW	Random	SRS-Wide	
K-15 SW	Random	SRS-Wide	

Survey Design

The meager inventory of sites in the vicinity of F and H Tracts provides little opportunity to make generalizations about prehistoric land-use practices for the purposes of survey design. However, as part of the larger SRS inventory of sites, the small sample reflects the tendency for habitation sites to be situated near appreciable sources of running water. Data on site distribution and assemblage content were used to quantify this locational relationship in a model of archaeological sensitivity (SRARP 1989). In short, the data show that sites indicative of long-term and/or repeated occupation are located within 400 m of streams Rank 3 or greater. Lesser sites are also located in this zone, but extend much farther away from major streams into upland areas along small tributaries and at springheads. Sites generally referred to as "lithic scatters" (i.e., assemblages consisting of a few nondiagnostic lithic artifacts, usually flakes) assume a seemingly random distribution across the landscapes and are found as much as 1700 m away from a source of running water. Interfluvial land use therefore appears to have been transient or specialized.

SRS Archaeological Sensitivity Zones were calculated from locational patterns of several hundred prehistoric sites as a tool for long-term resource management. Zones range in value from 1 to 3. Zone 1 consists of all lands within 400 m of streams rank 3 or greater; Zone 2 is all land 401-800 m from streams rank 3 or greater and all lands within 400 m of streams less than rank 3; Zone 3 is all other land with the exception of modern swamps and floodplains, which are routinely coded as "Ø" to denote inaccessible areas.

The Sensitivity Zones in the vicinity of the F and H Tracts are depicted in Figure 13. The tracts crosscut all three zones, but are more or less evenly divided between Zones 1 and 2. Virtually none of the Zone 2 area in either tract has been previously surveyed. As indicated above, the F Tract has witnessed limited survey, and all of this has taken place within Zone 1. Ideally, Zones 1 and 2 in both tracts need complete survey, but some restrictions, as noted earlier, preclude 100 percent coverage. Specifically, all of the area in and around the seepage basins was deemed inaccessible because of potential health risks to field personnel. This area corresponds roughly to Zone 2 in each of the tracts. Fortunately, all of Zone 1 was accessible. It follows that survey efforts concentrated on this zone to maximize the discover of prehistoric archaeological sites.

The discovery of historic period sites posed a different set of survey design problems. In contrast to prehistoric sites, the interfluvial areas of the SRS became important venues for late historic settlement in the Aiken Plateau (Brooks and Crass 1991). Thousands of farmsteads were established under the land tenure system after the Civil War, many in the 1930s and 1940s. These residences were either relocated or razed when the Atomic Energy Commission initiated construction of the SRS in 1951. Traces of these sites are found across the SRS, though they are not always conspicuous. Fortunately, the locations of former farmsteads are usually visible in the 1951 aerial

Figure 13. Archaeological Sensitivity Zones in and around the F and H Tracts.

photographs of the area. Accordingly, survey efforts in upland tracts do not usually necessitate transect sampling or other "blind" means of site discovery to locate these resources.

The routine procedure for surveying late historic period sites on the SRS is to review 1951 aerial photographs for visible evidence, then target such areas for surface reconnaissance and, if necessary, subsurface testing. Four such farmsteads were detected on the aerial photos of the project area. Three of the farmsteads were located in area now occupied by the H Area Seepage Basins. We assume that these resources are completely destroyed but we have no means of verifying this. The fourth farmstead was located on the northern edge of Zone 1 in the F Tract. Being sufficiently removed from the seepage basins and related land alteration, this resource was accessible for survey and testing.

To summarize, the survey of the F and H Tracts was designed to target the area of greatest (prehistoric) archaeological sensitivity. Although late historic farmsteads do not conform to prehistoric site distributions, the review of 1951 aerial photographs provides a good, if not comprehensive, means of locating such sites. Historic era sites predating the twentieth century generally conform to prehistoric site distributions as regards proximity to streams, and are hence usually located in Zone 1 (Brooks and Crass 1991; SRARP 1989). The specific field methods used to survey Zone 1 area in the F and H Tracts is the subject of the section that follows.

Field Methods

Field survey was structured and implemented in five stages: (1) survey of the twentieth-century historic sites depicted on aerial photographs; (2) site revisits to previously recorded prehistoric sites; (3) surface reconnaissance in areas with good surface visibility; (4) shovel testing along transects following the terrace margins of Fourmile Branch; and (5) test unit excavations at sites believed to have sufficient content and integrity to warrant nomination to the National Register of Historic Places. One survey team, varying from two to three archaeologists, conducted all the fieldwork.

Survey of Twentieth Century Sites. A review of a 1951 aerial photograph of the study area indicated that one late historic structure, designated 38AK537, existed in the east-central portion of the F Tract. Survey was initiated to collect information on the integrity and research potential of the site. No structural remains were located, but a surface scatter of glass, ceramics, and other household refuse attested to the location of the site. Nine shovel tests were dug to locate subsurface deposits. Shovel testing for the purposes of site boundary definition on the SRS is routinely done in a cruciform pattern. To accomplish this, shovel tests are placed 10 m apart along four transects and each of the four test lines is terminated with the excavation of two negative shovel tests or at the natural boundaries of the landform (e.g., terrace edge). The location, content and depth of each test are recorded on SRARP Shovel Test Forms. Shovel tests measure 35x35 cm square and the soil is sifted through 0.64 cm (0.25 in) hardware cloth. The cruciform pattern of shovel tests at 38AK537 was ineffective in defining site boundaries for few subsurface artifacts were located. Instead, site boundaries for 38AK537 were drawn from surface debris and from the distribution of hardwoods associated with the farmstead.

Site Revisits. The three previously recorded sites within the project area (38AK146, 38AK416, and 38BR57) were earmarked for further investigation because site records showed that past survey efforts were inadequate for defining boundaries and assessing research potential. Each of the the sites had yielded nondiagnostic prehistoric artifacts in surface contexts, and no subsurface testing was conducted. Sites 38AK146 and 38BR57 were relocated from surface evidence in rights-of way (see below) then

subjected to subsurface testing to define site boundaries. Site 38AK416 could not be relocated despite a substantial effort of surface and subsurface survey in the alleged location of the site. A series of five judgmental shovel tests in the 38AK416 vicinity yielded negative results.

Surface Reconnaissance. A total of 3.6 linear kilometers of roads, firebreaks, and other rights-of-way were examined for surface indications of archaeological sites (Figures 14 and 15). The two previously recorded sites (38AK146 and 38BR57) were relocated in this manner, and two new sites (38AK535 and 38AK537) were discovered. Surface artifacts were routinely collected and plotted on plan maps to assist in the delineation of site boundaries. Of course, these sites were likewise examined with shovel tests for information on subsurface extent and content.

Shovel Test Transects. Because the landforms bordering Fourmile Branch are densely wooded, and therefore have poor surface visibility, shovel testing was required to locate sites. As indicated earlier, the terraces bordering Fourmile Branch are within Archaeological Sensitivity Zone I and have the greatest potential for containing significant prehistoric and early historic sites. An intensive effort to locate sites along the terrace margin was accomplished by orienting shovel tests transects parallel to terrace topography, usually about 20 m back from the edge of the Fourmile Branch floodplain/swamp (Figures 16 and 17). Shovel tests were excavated at 30 m intervals along each transect to a depth of about 80 cm below surface or until sterile, gravelly clay substrate was encountered. Table 2 contains information regarding the number of shovel tests and average depth of tests per transect. A total of 140 shovel tests along 4.2 linear kilometers of transects was completed.

Some accommodations were made for unusual topography, and eroded and contaminated areas. Transects circumscribing three low-lying hammocks in the Fourmile Branch floodplain of the H Tract were implemented where sufficiently drained soil was

Table 2. Number and Average Depth of Shovel Tests by Transect.

	Transect #	# Tests	Average Depth (cm)
F Tract	1	8	73.1
	2	5	67.0
	3	21	66.0
	4	4	81.3
	5	3	66.7
	6	6	80.8
	7	24	75.6
H Tract	1	5	67.0
	2	6	72.5
	3	9	76.7
	4	6	34.2
	5	7	80.7
	6	15	53.7
	7	3	53.3
	8	3	48.3
	9	4	53.8
	10	4	55.0
	11	7	80.0

Figure 14. Surface survey transects in F Tract.

Figure 15. Surface survey transects in H Tract.

encountered (Figure 17). Similar landforms in the F Tract could not be inspected due to saturated conditions. Recalling discussion in Chapter 1, low-lying areas in the F and H Tract are potentially contaminated, so subsurface testing in wet areas was not attempted. Finally, the small strip of land to the east of Road 4 in the H Tract was not subjected to subsurface testing because the southern portion was highly eroded and the northern portion was previously contaminated. Health Protection personnel advised the field crew to avoid this latter area.

Test Unit Excavations. After each of the 12 total sites was examined with shovel tests, five sites (38AK146, 38AK534, 38AK535, 38AK539, and 38AK541) were selected for secondary tests because they contained a relatively high density and/or diversity of prehistoric artifacts in seemingly undisturbed contexts. At least one 1x2 m test unit was excavated at each site. Units were placed in locations of high density and diversity based on shovel tests. Units were oriented in cardinal directions and excavated in 10 cm arbitrary levels until two culturally sterile levels were encountered. Artifacts were collected and bagged by level and all relevant data recorded on SRARP level forms. A profile was drawn and photographed for each of the units to further document site stratigraphy.

Figure 16. Shovel test transects in the F Tract.

Figure 17. Shovel test transects in the H Tract.

Summary

Intensive survey for the F and H Tracts was conducted in five stages to maximize coverage in areas deemed highly sensitive for prehistoric archaeological remains and to evaluate a late historic period farmstead identified from aerial photographs. Surface reconnaissance, shovel testing, and test unit excavation were employed to locate, define and evaluate twelve archaeological sites. Chapter 4 provides the results of investigations at each of the sites.

CHAPTER 4 SURVEY RESULTS

Sites and artifacts discovered during the intensive survey of the F and H Tracts are described in this chapter. Two existing sites and ten new sites were located and documented in this effort (Figures 18 and 19). A South Carolina State Site Form was completed for each of the new sites and placed on file at the Savannah River Archaeological Research Program (SRARP) laboratories at the Savannah River Site (SRS). Duplicate files are stored at the South Carolina Institute of Archaeology and Anthropology in Columbia. Methods used to identify and analyze prehistoric artifacts from the SRS are described in full elsewhere (Sassaman et al. 1990) and need not be repeated here.

SITES IN THE F TRACT

38AK146

38AK146 is a multicomponent site with lithic and ceramic artifacts indicative of Early, Middle, and Late Woodland occupations. The site is located on a terrace/ridge slope about 30 m north of the Fourmile Branch floodplain (Table 3). First documented as a "lithic scatter" in 1974, 38AK146 is approximately 0.95 ha in size. Its western edge is currently intercepted by Road C-4, where lithic debitage is visible on the surface (Figure 20). Vegetation is dominated by pines which are bordered on the east and south by hardwoods within the Fourmile Branch floodplain.

38AK146 was relocated while conducting a shovel test transect following the terrace/ridge slope above Fourmile Branch floodplain. Its location was confirmed by a walk-over and surface collection of Road C-4. Despite these positive results, it was difficult to establish the boundaries of 38AK146 because of low artifact density. Site boundaries based on subsurface testing are usually drawn where two consecutive shovel tests at 10 m intervals fail to yield artifacts. The initial cruciform pattern of tests to establish boundaries was largely negative, but additional testing along the terrace edge produced positive results in two other locations within 50 m of the initial test (Prov. 2). These various areas could not be linked by shovel tests and technically could be considered separate sites. However, because these areas all lie on the same landform and each yielded similar artifacts, it seemed reasonable to combine the separate areas into one site.

Table 3. Specifications for site 38AK146.

Cultural Components	<i>Early, Middle, and Late Woodland</i>
Descriptive Site Type	<i>Multicomponent habitation</i>
Site Dimensions	<i>160 x 85m</i>
Depth of Cultural Material	<i>0-65 cmbs</i>
Landform Location	<i>Terrace/Ridge Side Slope</i>
Elevation AMSL	<i>185 ft.</i>
Elevation above Nearest Rank 3 Stream	<i>10 ft.</i>
Distance to Water	<i>20 m</i>
Soil Type	<i>Dothan</i>
Soil Classification	<i>Sand</i>
Soil Description	<i>Well drained, slow permeability</i>
Ground Cover	<i>Moderate</i>

Figure 18. Location of archaeological sites in the F Tract.

Figure 19. Location of archaeological sites in the H Tract.

In testing for boundaries, a total of 31 shovel tests were dug. Recovered in the eleven positive tests were three biface fragments, three sherds, and 13 flakes (Table 4). Diagnostic sherds consist of Early or Middle Woodland simple stamped and Middle Woodland Deptford linear check stamped varieties. A small triangular point indicates the presence of a Late Woodland or Mississippian component as well.

Based on the shovel test results, the decision was made to open a 1x2 m test unit near the southern end of the site where the highest density of artifacts was encountered. The unit was oriented due north and excavated in 10 cm arbitrary levels to a depth of 110 cm below surface (cmbs). Prehistoric cultural material was recovered from Levels A-I (0-90 cmbs).

Figure 20. Site map for 38AK146.

Table 4. Artifacts Recovered from 38AK146 by Shovel Test (x) and Surface (Ø) Provenience.

Shovel Test	Lithic Debitage		Lithic Tools	Sherds
	Ct.	Wt.(g)		
2x(1)	1	1.9		
3x(1)	2	18.3		
3x(3)	6	2.3		
4x(1)	2	4.2	1 ^a	
5x(1)	1	0.8		
5x(3)	3	0.9		
6x(2)				2 ^c
7x(1)	1	.2		
8x(1)			1 ^b	
8x(2)			1 ^a	
8x(3)				1 ^d
9Ø	4	3.1		
10Ø	3	2.3		
Total	23	34.0	3	3

^a unidentifiable biface fragment; ^b triangular; ^c simple stamped; ^d linear check stamped

A photograph and drawing of the west profile of Prov. 11 is given in Figure 21. The plowzone is underlain by yellowish brown sandy loam that extends to about 70 cmbs where it grades into a lighter sandy loam interspersed with discontinuous sandy clay lamellae. An apparent disturbance to the subsoil is also observed in profile. Characterized by a large subunit of yellowish brown sandy loam, the disturbance is probably an ancient tree throw. The disturbance was not observed in the course of excavation, so any effects it may have had on cultural deposits can only be inferred from indirect evidence.

The inventory of artifacts from Prov. 11 is given in Tables 5 and 6. The highest density of material is found in Level E (40-50 cmbs), where flakes, cracked rock, and an Early Woodland stemmed/notched biface were found (Figure 22). Also recovered from Level E were two cordmarked sherds. A third cordmarked sherd was found in level C (20-30 cmbs), and two Early Woodland (Refuge) simple stamped sherds were found in Level B (10-20 cmbs). The apparent reverse order of these diagnostic sherds may be attributed to the disturbance evident in the west profile. Traces of this disturbance appear at about 50 cmbs. If a tree throw, the disturbance could have easily displaced simple stamped sherds upward and caused some cordmarked sherds to move downward.

In sum, 38AK146 contains components dating from the Early, Middle, and Late Woodland periods in a seemingly stratified context ranging at least 50 cmbs. The results of Prov. 11 testing are somewhat ambiguous because of an apparent disturbance to subplowzone strata. Nonetheless, a buried Early Woodland component some 40-50 cmbs constitutes a significant component at the site. An overlying Late Woodland component might also be preserved beneath the plowzone. Intervening Middle Woodland components were not observed in Prov. 11, but evidence from shovel tests suggest that portions of the site contain intact, subplowzone strata dating to this period. The density of cultural material throughout the site is low compared to many other Aiken Plateau sites (e.g., Sassaman 1989, 1992), but 38AK146 nonetheless remains significant for its multiple, buried, and seemingly stratified deposits at a location in such close proximity to active floodplain.

West Profile
Provenience 11
38AK146

Figure 21. Drawing and photograph of west profile, Provenience 11, 38AK146.

Table 5. Lithic Artifacts Recovered from 38AK146, Provenience 11, by Level.

Level	Lithic Debitage		Unifacially Modified Flake	Stemmed/ Notched Biface	Hematite		Miscellaneous Crkd. Rock	
	Ct.	Wt.(g)			Ct.	Wt.(g)	Ct.	Wt.(g)
A	2	1.5						
B	3	2.8						
C	8	10.8					2	23.9
D	11	7.1	1				1	21.1
E	19	12.6		1			11	193.6
F	12	2.8			1	6.8		
G	2	0.1						
H	1	0.1						
I	3	0.4						
TOTAL	61	38.2	1	1	1	6.8	14	238.6

Table 6. Sherds Recovered from 38AK146, Provenience 11, by Level.

Level	Simple Stamped	Cordmarked	Eroded >1/2"	TOTAL
A			4	4
B	2		4	6
C		1	3	4
D				0
E		2		2
TOTAL	2	3	11	16

Figure 22. Selected artifacts from shovel tests and test unit of 38AK146 [a. 3x(1); b. 8x(1); c. 11E; d. 11C; e. 11E].

38AK534

38AK534 is a small, Middle to Late Woodland ceramic scatter located on a ridge slope 200 m northwest of Fourmile Branch (Table 7, Figure 23). The site was found while conducting a shovel test transect along the ridge slope above a small intermittent drainage that flows southeasterly into Fourmile Branch. The site is 20 m north of a wetland boundary, with vegetation consisting of a mixed hardwood/pine forest and young, planted pines to the west.

Table 7. Specifications for site 38AK534.

Cultural Components	<i>Middle/Late Woodland</i>
Descriptive Site Type	<i>Ceramic scatter</i>
Site Dimensions	<i>55 x 25 m</i>
Depth of Cultural Material	<i>0-5 cmbs</i>
Landform Location	<i>Ridge side slope</i>
Elevation AMSL	<i>200 ft.</i>
Elevation Above Nearest Rank 3 Stream	<i>20 ft.</i>
Distance to Water	<i>100 m</i>
Soil Type	<i>Dothan</i>
Soil Classification	<i>Sand</i>
Soil Description	<i>Well drained, slow permeability</i>
Ground Cover	<i>Moderate</i>

Shovel test 1x(1) yielded a single, eroded Deptford linear check stamped sherd. A cruciform series of shovel tests was excavated to establish the extent and integrity of the site. No subsurface materials were encountered. However, a cluster of seven cordmarked and two eroded sherds (all possibly from the same vessel) was found along a field road some 40 m to the west of the location of the Deptford sherd. A series of judgmental tests in the vicinity of these sherds failed to produce artifacts. 38AK534 apparently lacks subsurface cultural deposits. Moreover, the limited amount and diversity of recovered material points to a limited function for the site during the Middle Woodland period.

38AK536

38AK536 is a small, Middle Woodland lithic/ceramic scatter with twentieth-century refuse located on a ridge side slope 220 m northwest of Fourmile Branch (Table 8, Figure 24). The site, 0.09 ha in size, is bisected by an eroded drainage ditch which empties into swampy bottomland 50 m southeast of the site. Current vegetation is a pine forest bordered by mixed hardwoods within Fourmile Branch floodplain and young pines (≤ 10 yrs.) due north of the site.

The site was discovered while conducting a shovel test transect of the ridge slope above Fourmile Branch floodplain. The initial positive shovel test, 1x(1), recovered several shards of glass from a Ball-type canning jar and was established as the datum for a cruciform testing pattern. Nine additional shovel tests were dug in an effort to determine the site's boundary and integrity. Shovel test 3x(2) recovered a Deptford linear check stamped sherd, but none of the other shovel tests recovered additional artifacts. A surface survey of the ditch and an adjacent field road was also conducted and a few glass shards, a tin bucket, and a single lithic flake were found and recorded on the field map (the flake was the only artifact collected).

Figure 23. Site map for 38AK534.

The limited evidence for Middle Woodland activity at the site parallels the meager results from 38AK534. Twentieth-century artifacts may represent a homesite although no architectural evidence was located, nor was a structure evident in the 1951 aerial photograph of this area. It is likely that the historic period artifacts relate to activities stemming from the occupation of the nearby homesite, 38AK537.

Table 8. Specifications for site 38AK536.

Cultural Components	Middle Woodland, 20th century
Descriptive Site Type	Lithio/ceramic/historic scatter
Site Dimensions	45x 20 m
Depth of Cultural Material	0-50 cmbs
Landform Location	Ridge side slope
Elevation AMSL	210 ft.
Elevation Above Nearest Rank 3 Stream	20 ft.
Distance to Water	180 m
Soil Type	Dothan
Soil Classification	Sand
Soil Description	Well drained, slow permeability
Ground Cover	Moderate

Figure 24. Site map for 38AK536.

38AK537

38AK537 is a twentieth-century home site located on a ridge slope 320 m northwest of Fourmile Branch (Table 9). The site is clearly visible in the 1951 aerial photograph (SRP-1-64) of the area and was apparently part of a farmstead. No structural features are present at the site which is now highly disturbed from the construction of groundwater monitoring wells FSB 106 C & D (Figure 25). The lack of structural remnants is not uncommon for home sites because all structures were removed or destroyed after the properties were purchased by the U.S. Atomic Energy Commission in the early 1950s. All that remains of 38AK537 today is a broad scatter of glass, ceramics, and other household items. One whiteware plate sherd, one stoneware jug sherd, one shard each of cobalt blue and clear glass, a castor oil bottle neck, and an "Energex" sparkplug were collected as a grab sample. To examine the potential for subsurface deposits, a cruciform pattern of nine shovel tests was completed. The only positive shovel test was located within the road bed leading to the monitoring wells. Contained in this test were three pieces of clear bottle glass and a small brick fragment. Additional subsurface testing was not warranted. The boundaries of 38AK537 were drawn from the surface distribution of household refuse and from hardwoods associated with the home site.

Table 9. Specifications for site 38AK537.

Cultural Components	20th century
Descriptive Site Type	Farmstead
Site Dimensions	60 x 30 m
Depth of Cultural Material	0-15 cmbs
Landform Location	Ridge side slope
Elevation AMSL	225 ft.
Elevation Above Nearest Rank 3 Stream	40 ft
Distance to Water	320 m
Soil Type	Dothan
Soil Classification	Sand
Soil Description	Well drained, slow permeability
Ground Cover	Moderate

38AK538

Evidence of a minor Middle and Late Woodland occupation was found at 38AK538 while conducting a shovel test transect along a ridge nose above Fourmile Branch. The site, 0.02 ha in size, is located 180 m northwest of Fourmile Branch and 15 m southwest of a swampy bottom within the Fourmile Branch floodplain (Table 10, Figure 26). A cruciform testing pattern was established to determine the site's spatial extent and integrity. Of the ten shovel tests excavated, only four contained artifacts. One cordmarked sherd was retrieved from Prov. 1x(1), and two check stamped sherds were recovered from Prov. 3x. The only other artifacts found include an eroded sherd from Prov. 1x(3) and a flake from Prov. 2x(1). Artifacts from shovel tests were observed as deep as 50 cmbs, but no discernible stratigraphy was observed.

The small size and low artifact density of this site suggests that it was a only briefly occupied during the Middle to Late Woodland periods. The site is thus very similar to 38AK534 and 38AK536 in its small size, low density and low diversity.

Figure 25. Site map for 38AK537.

Table 10. Specifications for site 38AK538.

Cultural Components	Middle/Late Woodland
Descriptive Site Type	Lithic/ceramic scatter
Site Dimensions	10 x 20 m
Depth of Cultural Material	0-50 cms
Landform Location	Ridge nose
Elevation AMSL	205 ft.
Elevation Above Nearest Rank 3 Stream	10 ft.
Distance to Water	180 m
Soil Type	Fuquay
Soil Classification	Loamy sand
Soil Description	Well drained, slow permeability
Ground Cover	Moderate

Figure 26. Site map for 38AK538.

38AK543

38AK543 is a multicomponent prehistoric site with artifacts dating from the Late Archaic, Late Woodland, and Mississippian periods. The site is located on a ridge which separates a small wetland area from an unnamed stream 100 m northwest of Fourmile Branch (Table 11, Figure 27). The ridge is forested in mixed hardwood/pines with the adjacent wetlands dominated by mixed hardwoods. The site was found while conducting a shovel test transect along the length of the ridge. Of the 17 shovel tests excavated in a cruciform pattern, eight were positive yielding a low density of lithic debitage, three nondiagnostic sherds, and a single small triangular point (Table 12). Shovel test 1x(1) contained half of the lithic debitage (n=14), the small triangular point, and a small sherd. Because of the relative density associated with this shovel test, a 1x2 m unit was opened in the adjacent area.

The test unit (Prov. 8) was placed one meter southwest of shovel test 1x(1) and excavated in 10 cm arbitrary levels. A photograph and drawing of the west profile of the unit are provided in Figure 28. The profile shows a surface stratum of very dark grey sandy loam that grades into a dark brown sandy loam between 10 and 20 cmbs. These strata resemble a plowzone, but plowscars were not observed in plan. Beneath the dark strata is a thick mantle of light yellowish brown sandy loam that becomes increasing lighter with depth before contacting strong brown clay loam at about 70 cmbs.

Table 11. Specifications for site 38AK543.

Cultural Components	<i>Late Archaic, Late Woodland, and Mississippian</i>
Descriptive Site Type	<i>Multicomponent habitation</i>
Site Dimensions	<i>90x50 m</i>
Depth of Cultural Material	<i>10-60 cmbs</i>
Landform Location	<i>Terrace remnant</i>
Elevation AMSL	<i>185 ft.</i>
Elevation Above Nearest Rank 3 Stream	<i>5 ft.</i>
Distance to Water	<i>20m</i>
Soil Type	<i>Alley sand</i>
Soil Classification	<i>Sandy loam</i>
Soil Description	<i>Well drained, slowly permeable</i>
Ground Cover	<i>Moderate</i>

Table 12. Artifacts Recovered from 38AK543 by Shovel Test.

Shovel Test	Lithic Debitage		Sm. Triangular Bifaces	Pottery
	Ct.	Wt.(g)		
1x(1)	14	8.2	1	1 ^a
1x(2)	3	0.8		1 ^a
2x(1)	6	3.7		1 ^a
3x(1)	1	2.4		
4x(1)	1	0.4		
5x(1)				1 ^a
6x(2)	1	1.0		1 ^a
7x(2)	1	0.1		
Total	27	16.6	1	5

^a plain; ^b crumb; ^c eroded

Figure 27. Site map for 38AK543.

Figure 28. Drawing and photograph of west profile, Provenience 8, 38AK543.

The inventory of artifacts recovered from Prov. 8 is reported by level in Tables 13 and 14. As the breakdown of diagnostic sherds reveals, Prov. 8 contained mixed deposits. Late Archaic Thom's Creek punctate sherds (Figure 29) were found in levels A and C, and these were interspersed by a cordmarked sherd and a rim sherd with a rosette applique indicative of the Mississippian period (Figure 29). Artifacts in the unit continued to a depth of 60 cmbs, but in the absence of pottery. Density quickly dropped below 30 cm, indicating a lack of appreciable deposition over the 4000 or so years of occupation represented. In short, the lack of vertical separation among the components was discouraging, but the presence of a Mississippian component, which are comparatively rare on the SRS, as well as a Thom's Creek component, encouraged additional testing. Table 13. Lithic Artifacts Recovered from 38AK543, Provenience 8, by Level.

A second 1x2 m unit (Prov. 9) was added to the first unit primarily to examine the potential for Mississippian deposits. For this reason only the upper two levels (Levels A-B) were excavated. The artifact inventory of these levels is provided in Table 15. As these figures show, no additional Mississippian material was recovered, but several plain fiber-tempered sherds found, along with eroded sand-tempered sherds and significant quantities of fired clay lumps and miscellaneous cracked rock. The fiber-tempered sherds are likely contemporaneous with the Thom's Creek sherds from Prov. 8, which substantiates the presence of a ceramic Late Archaic component. The results further support the notion that little deposition has accumulated at the site, although more extensive deep testing will be required to confirm this. The burned clay and fired cracked rock signify possible evidence for a hearth or other heat-related facility.

Table 13. Lithic Artifacts Recovered from 38AK543, Provenience 8, by Level.

Level	Lithic Debitage		Small Triangular Point	Other Biface	Hematite/ Ferr. Sandstone		Miscellaneous Crkd. Rock	
	Ct.	Wt.(g)			Ct.	Wt(g)	Ct.	Wt (g)
A	8	3.7						
B	32	10.2	1		2	24.7	2	30.4
C	31	11.5		1	1	59.1		
D	16	6.3			1	8.5	1	48.2
E	9	2.9						
F	5	1.8						
TOTAL	101	36.4	1	1	4	92.3	3	78.6

Table 14. Sherds Recovered from 38AK543, Provenience 8, by Level.

Level	Thom's Creek Punctate	Cord-marked	Mississippian	Plain	Eroded $\leq 1/2"$	TOTAL
A	1			1		2
B		2	1		9	12
C	1				2	3
TOTAL	2	2	1	1	11	17

Figure 29. Selected artifacts from shovel tests and test units of 38AK543 [a. 1x(1); b. 8B; c. 8C; d. 9A; e. 8A; f. 8B; g-h. 8C; i. 9B].

Table 15. Artifacts Recovered from 38AK543, Provenience 9, by Level.

Level	Lithic Debitage		S h e r d s		Fired Clay	Hematite/ Ferr. Sandstone		Miscellaneous	
	Ct.	Wt.(g)	F-T Plain	Eroded		Ct.	Wt (g)	Crkd. Rock Ct.	Wt (g)
A	28	17.7	2	4	10	4	6.4	33	52.3
B	22	10.9	3		22	10	45.8	18	46.2
TOTAL	50	28.6	5	4	32	14	52.2	51	98.5

The problem of component mixing at 38AK543 is partially offset by the fact that Late Woodland and Mississippian components at the site are ephemeral. The ceramic Late Archaic component is much better represented and although it appears to be spread over several levels, a living surface at about 20 cmbs may yet be preserved.

SITES IN THE H TRACT

38BR57

38BR57 is an Early Woodland lithic/ceramic scatter located on a ridge slope 80 m north of Fourmile Branch (Table 16, Figure 30). The site is situated within a young pine plantation (≤ 10 years), bordered to the south and west by mixed hardwoods within the Fourmile Branch floodplain. The site was originally recorded in 1974 and described as a prehistoric flake scatter and twentieth-century home site. No diagnostic prehistoric artifacts were recovered at that time.

38BR57 was relocated during a pedestrian survey of the ditch associated with a gravel road leading to groundwater monitoring wells HSB 126 C&D. Lithic and ceramic artifacts were found scattered along the ditch bank for a distance of 140 m ending in the turn-a-round directly above the wells. The small surface collection consisted of two small simple stamped sherds of probable Refuge age, a biface midsection with morphology reminiscent of Early Woodland technology, and nine flakes weighing 84.3 grams. It is noteworthy that among the flakes are two large specimens, one consisting of Coastal Plain chert with river cobble cortex, and the other is orthoquartzite. The chert flake is especially interesting given indirect evidence for chert quarries in the Fourmile Branch, and the likelihood that such quarries are inundated (Sassaman et al. 1992). No evidence for a twentieth-century component was noted, nor was evidence of a late historic structure found on 1951 aerial photos of the area.

Table 16. Specifications for site 38BR57.

Cultural Components	<i>Early Woodland</i>
Descriptive Site Type	<i>Lithic/ceramic scatter</i>
Site Dimensions	<i>20 x 140 m</i>
Depth of Cultural Material	<i>0 cmbs</i>
Landform Location	<i>Ridge side slope</i>
Elevation AMSL	<i>210 ft.</i>
Elevation Above Nearest Rank 3 Stream	<i>10 ft.</i>
Distance to Water	<i>80 m</i>
Soil Type	<i>Vaughn-Ailey</i>
Soil Classification	<i>Sand</i>
Soil Description	<i>Well drained, slowly permeable</i>
Ground Cover	<i>Light</i>

Figure 30. Site map for 38BR57.

To search for subsurface evidence, a transect of shovel tests was established along the west side of the ditch and road at a 20 m interval. Unfortunately, no additional cultural materials were recovered and the site appears to have a low artifact density which is scattered across a considerable area. It stands to reason that road construction and maintenance has contributed to the extensive, linear distribution of artifacts.

38AK535

Appreciable evidence for Early and Late Woodland occupations was found at 38AK535. The site is located on a ridge nose 150 m north of Fourmile Branch and is currently planted in young pines (≤ 10 years) (Table 17, Figure 31). It was located while conducting a surface survey of a field road which heads southeasterly toward Fourmile Branch floodplain from wells HSB 69 and 69A. Several flakes, Late Woodland cordmarked sherds, a few plain sherds, and a chert stemmed biface were collected along the eroded surface of the road (Prov. 10; Table 18). A modified cruciform pattern of shovel tests was employed to determine site boundaries. No sherds were recovered from the shovel tests but a single hafted biface fragment was recovered near the densest concentration of surface artifacts. The biface appears to be a Late Archaic or Early Woodland stemmed variety, however type classification is difficult due to the absence of the haft element. The results of the surface survey and shovel tests suggested that the site contained multiple components and warranted further investigation.

A single 1x2 m test unit (Prov. 8) was excavated in the vicinity of greatest surface density to examine subsurface integrity and content. The unit was excavated in 10 cm arbitrary levels to a depth of 70 cmbs. The east profile of the unit (Figure 32) depicts a 15-20 cm thick plowzone subdivided into an upper very dark grayish brown sandy loam and a lower dark brown sandy loam. Below the plowzone is undifferentiated light yellowish brown sandy loam. The contact between plowzone and underlying soil is sharp with evidence of distinct plowscars.

Artifacts were recovered from the first five levels of the unit (Tables 19 and 20). The plowzone assemblage (Levels A-B) consists of cordmarked, simple stamped, and eroded sherds, debitage, miscellaneous cracked rock, and a small stemmed hafted biface (Figure 33). The subplowzone assemblage consists of additional simple stamped sherds, debitage, cracked rock, a piece of hematite, and a bifacial core fragment. The simple

Table 17. Specifications for site 38AK535.

Cultural Components	<i>Early and Late Woodland</i>
Descriptive Site Type	<i>Multicomponent habitation</i>
Site Dimensions	<i>75 x 80 m</i>
Depth of Cultural Material	<i>0-80 cmbs</i>
Landform Location	<i>Ridge nose</i>
Elevation AMSL	<i>210 ft.</i>
Elevation Above Nearest Rank 3 Stream	<i>10 ft.</i>
Distance to Water	<i>100 m</i>
Soil Type	<i>Vaucluse</i>
Soil Classification	<i>Sandy loam</i>
Soil Description	<i>Well drained</i>
Ground Cover	<i>Heavy</i>

Figure 31. Site map for 38AK535.

Figure 32. Drawing of east profile of Provenience 8, 38AK535.

stamped sherds throughout the levels are typical of Early Woodland Refuge phase sherds, and the small stemmed biface likely dates to this interval as well. Much of this component and all of the Late Woodland material was taken from the plowzone; however, a remnant of the Refuge phase component is preserved beneath the plowzone. The relatively high density of fire-cracked rock attests to cooking/heating functions probably associated with Early Woodland site use. In its flake size diversity and raw material diversity, the small lithic assemblage lends further support for a habitation function for this component. Although older and deeper components were not identified in Prov. 8, the presence of highly patinated flakes in a shovel test at the south end of the site suggests that Archaic components are also preserved below the plowzone in other portions of the site.

Table 18. Artifacts Recovered from 38AK535 by Shovel Test and Surface Provenience.

Shovel Test	Lithic Debitage		Bifaces	Pottery
	Ct.	Wt.(g)		
1(ø)	3	2.4	1 ^a	16 ^b
2x(1)	9	4.4		
3x(1)	1	0.5		
3x(3)	1	0.9		
4x(1)	1	0.2	1 ^a	
4x(2)	6	2.0		
5(ø)				1 ^c
6x(1)	3	4.8		
7x(1)	3	0.5		
7x(2)	5	2.1		
9(ø)			1 ^d	
Total	32	17.8	3	17

^a stemmed hafted biface; ^b 10 cordmarked, 1 simple stamped, 1 punctated, 4 eroded;

^c cordmarked; ^d other biface fragment

Figure 33. Selected artifacts from surface, shovel tests, and test units of 38AK535 [a. 1Ø; b. 4x(1); c. 9x; d. 8A; e. 8D; f-l. 1Ø; j-l. 8B; m. 8C].

Table 19. Lithic Artifacts Recovered from 38AK535, Provenience 8, by Level.

Level	Lithic Debitage		Small Stemmed Point	Other Biface	Hematite/ Ferr. Sandstone		Miscellaneous Crkd. Rock	
	Cl.	Wt.(g)			Cl.	Wt.(g)	Cl.	Wt.(g)
A	5	14.9	1				4	104.7
B	14	10.4					9	646.1
C	10	8.7			1	4.6	11	348.6
D	16	8.1		1			6	383.6
E	5	5.4					1	96.7
TOTAL	50	49.5	1	1	1	4.6	31	1577.7

Table 20. Sherds Recovered from 38AK535, Provenience 8, by Level.

Level	Simple Stemmed		Contracted	Eroded $\geq 1/2"$	Crumb $< 1/2"$	TOTAL
A			2	1		3
B	4		1	1		6
C	2				1	3
D	1					1
TOTAL	7		3	2	1	13

38AK539

38AK539 is a Middle to Late Woodland lithic/ceramic scatter located at the base of a ridge slope 30 m north of Fourmile Branch (Table 21, Figure 34). The eastern portion of the site lies on a small levee extending eastward from the base of the ridge slope. A small Carolina Bay is located 140 m northeast of the site with sites 38AK540 and 38AK541 also in the vicinity; 38AK540 lies 120 m to the north and 38AK541 is located 100 m to the northeast. 38AK539 is forested in mixed hardwood/pine vegetation and is bordered by the hardwood dominant floodplain to the south and by the pine dominant ridge slope to the north.

The site was found while conducting a shovel test transect heading south down the ridge slope toward Fourmile Branch. A cruciform testing pattern was established to determine the extent and integrity of the site. Fourteen shovel tests were excavated,

Table 21. Specifications for site 38AK539.

Cultural Components	Middle and Late Woodland
Descriptive Site Type	Lithic/ceramic scatter
Site Dimensions	20 x 120 m
Depth of Cultural Material	0-70cms
Landform Location	Ridge side slope
Elevation AMSL	200 ft.
Elevation Above Nearest Rank 3 Stream	10 ft.
Distance to Water	40 m
Soil Type	Blanton
Soil Classification	Sand
Soil Description	Excessively drained soil
Ground Cover	Moderate

Figure 34. Site map for 38AK539.

Table 22. Artifacts Recovered from 38AK539 by Shovel Test Provenience.

Shovel Test	Lithic Debitage		Misc. Crd. Rock		Pottery ^a
	Cl.	Wt.(g)	Cl.	Wt.(g)	
1x(1)					1
2x(1)	26	23.1			3
2x(2)	1	0.4			
2x(3)	2	0.5			2
2x(4)	5	3.6	3	17.7	
2x(5)	3	2.0			2
2x(6)			1	7.4	2
Total	37	29.6	4	25.1	10

^a all sherds are eroded

seven of which were positive producing a total of 10 eroded sherds, 37 flakes, and four miscellaneous rocks (Table 22). No diagnostics were recovered from the shovel tests aside from the eroded sherds which placed the site temporally within the Woodland Period.

To obtain further information on site content and integrity, a 1x2 m test unit (Prov. 3) was excavated on the levee portion of the site where the highest density of artifacts was noted in the shovel testing. The unit was excavated in 10 cm arbitrary levels to contact with the clay line of approximately 77 cmbs. A profile of the unit (Figure 35) reveals a thick A horizon underlain by very pale brown sandy loam and a strong brown sandy clay. No evidence for plowing was observed.

Figure 35. Drawing and photograph of north profile, Provenience 3, 38AK539.

Artifacts in Prov. 3 were limited to several flakes in the upper 20 cm (Table 23) Level C, however, yielded several sherds of a cordmarked vessel (Figure 36a-e) and few other items. Level D contained an additional two cordmarked sherds along with a large linear check stamped sherd (Figure 36f, g). These pottery types may very well be contemporaneous in the late Deptford phase. Although the density and diversity of artifacts are not impressive, the assemblage is buried well below the surface and does not appear to be disturbed by plowing or other modern land-use practices. Components of this period are usually situated within the plowzone of Aiken Plateau sites. Thus, 38AK539 holds great potential for yielded detailed information on a small-scale Middle to Late Woodland habitation.

Table 23. Artifacts Recovered from 38AK539, Provenience 3, by Level.

Level	Lithic Debitage		Misc. Cracked Rock		Pottery			
	Cl.	Wt.(g)	Cl.	Wt.(g)	Linear Check Stamped	Cord-marked	Eroded $\geq 1/2"$	Crumb $< 1/2"$
A	2	1.5						
B	11	5.2						
C	1	0.2				14	1	5
D			1	8.1	1	2		1
E	1	0.1						
TOTAL	15	7.0	1	8.1	1	16	1	6

Figure 36. Selected artifacts from Provenience 3 of 38AK539 [a-e. 3C; f-g. 3D].

38AK540

38AK540 is a small Early to Middle Woodland lithic/ceramic scatter located on a ridge nose 130 m north of Fourmile Branch floodplain and 120 m north of 38AK539 (Table 24, Figure 37). Approximately 0.02 ha in size, the site is located in a mixed hardwood/pine forest and was discovered while conducting a shovel test transect across the landform. The initial shovel test yielded a single flake at a depth of 40-50 cm and a cruciform testing pattern was established to determine the extent and integrity of the site.

As shown in Table 25, a total of six flakes and four sherds were recovered from three shovel tests and an isolated surface context. The majority of these artifacts are non-diagnostic, but two simple-stamped sherds are indicative of either an Early Woodland Refuge component or an early Middle Woodland Deptford component. Both of these items came from plowzone contexts; only a few flakes and a crumb sherd were located below the plowzone. Combined with small site size, the low density and diversity of artifacts suggests that this site witnessed only limited occupation. Its apparent shallow depth limits its potential for providing much information about such small-scale site use.

Table 24. Specifications for site 38AK540.

Cultural Components	<i>Early-Middle Woodland</i>
Descriptive Site Type	<i>Lithic/ceramic scatter</i>
Site Dimensions	<i>20x50 m</i>
Depth of Cultural Material	<i>10-65 cmbs</i>
Landform Location	<i>Ridge nose</i>
Elevation AMSL	<i>210 ft.</i>
Elevation Above Nearest Rank 3 Stream	<i>20 ft.</i>
Distance to Water	<i>160 m</i>
Soil Type	<i>Blanton</i>
Soil Classification	<i>Sand</i>
Soil Description	<i>Excessively drained soil</i>
Ground Cover	<i>Moderate</i>

Table 25. Artifacts Recovered from 38AK540 by Shovel Test and Surface Provenience.

Shovel Test	Lithic Debitage		Pottery		
	Cl.	Wt(g)	Simple Stamped	Eroded $\geq 1/2"$	Crumb $< 1/2"$
1x(1)	1	0.4			
1x(2)			1		1
2x(1)	4	2.1	1	1	
3(Ø)	1	1.0			
Total	6	3.5	2	1	1

Figure 37. Site map for 38AK540.

38AK541

38AK541 is a Middle to Late Woodland lithic/ceramic scatter located on a ridge slope 80 m north of Fourmile Branch (Table 26, Figure 38). A small wetland area lies 30 m northwest of the site and an intermittent drainage originating from it flows around the site's northern and eastern margins. This intermittent stream converges with another stream 30 m east of the site forming a slightly deeper channel that flows southward into Fourmile Branch. The extent vegetation is dominated by hardwoods, but a few pines are also located within the site area.

The site was found while conducting a shovel test transect along the base of the ridge slope above the Fourmile Branch floodplain. Cruciform tests were established to determine the extent and integrity of the site. Eleven of the 32 tests yielded artifacts (Table 27). All but two of the positive tests contained lithic debitage, and four tests included prehistoric sherds, two cordmarked, the rest eroded.

A 1x2 m test unit (Prov. 7) was established in the area of greatest subsurface artifact density. The profile of this unit revealed no evidence for plowing (Figure 39). Instead, the profile consisted of 50 cm thick mantle of graded brown to light yellowish

Table 26. Specifications for site 38AK541.

Cultural Components	<i>Early, Middle, Late Woodland</i>
Descriptive Site Type	<i>Small-scale habitation</i>
Site Dimensions	<i>70 x 70m</i>
Depth of Cultural Material	<i>0-50 cms</i>
Landform Location	<i>Ridge side slope</i>
Elevation AMSL	<i>200 ft.</i>
Elevation Above Nearest Rank 3 Stream	<i>10 ft.</i>
Distance to Water	<i>30 m</i>
Soil Type	<i>Blanton</i>
Soil Classification	<i>Sand</i>
Soil Description	<i>Excessively drained soil</i>
Ground Cover	<i>Moderate</i>

Table 27. Artifacts Recovered from 38AK541 by Shovel Test Provenience.

Shovel Test	Lithic Debitage		Pottery	
	Ct.	Wt.(g)	Cord-marked	Eroded $\geq 1/2"$
1x(1)	2	2.1	1	
1x(3)	4	4.9		
2x(1)	2	0.3		
2x(2)				1
3x(1)	4	2.3		
3x(2)	1	0.5		
4x(2)	1	0.5		1
5x(1)			1	3
5x(3)	1	0.5		
5x(4)	1	1.8		
6x(1)	1	0.6		
Total	17	13.5	2	5

Figure 38. Site map for 38AK541.

Figure 39. Drawing and photograph of east profile, Provenience 7, 38AK541.

brown sandy loam overlying a brownish yellow sandy clay. Artifacts were located in the upper 40 cm of the profile. Although artifact density in the unit was not great, probable stratigraphic separation among the various components was observed.

Levels A and B contained the bulk of recovered artifacts, including a combination of orthoquartzite and Coastal Plain chert flakes, sherds, lithic tools, and a piece of miscellaneous cracked rock (Tables 28 and 29). Cordmarked and linear check stamped sherds indicative of Middle Woodland and possibly Late Woodland occupation (Figure 40) were confined to Level A. A single simple stamped sherd (Figure 40e) and several eroded sherds that are likely simple stamped were recovered in Level B. Combined with the small stemmed point found in Level B (Figure 40a), these sherds are indicative of an Early Woodland Refuge phase component. The few artifacts found in Levels C and D appear to have "trickled-down" from levels above.

Overall, the 38AK541 assemblage is unimpressive, but its context is important. Although the depth of the cultural materials is shallow, no apparent plowing or other disturbances have severely impacted the site. Thus, 38AK541 has great potential for yielding information on small scale Woodland habitation sites in the Aiken Plateau. Parenthetically, the utilization of orthoquartzite for Early Woodland flaked stone technology is interesting given our prior knowledge that such material was ignored locally until the Middle Woodland Deptford phase (Sassaman 1992a). On this issue alone, 38AK541 can add to the growing body of technological data that are useful in reconstructing settlement range, labor organization, and other aspects of the Woodland economy.

Table 28. Lithic Artifacts Recovered from 38AK541, Provenience 7, by Level.

Level	Lithic Debitage		Small Stemmed Point	Other Biface	Uniface	Miscellaneous Crkd. Rock	
	Ct.	Wt.(g)				Ct.	Wt.(g)
A	25	20.3				1	66.7
B	40	32.7	1		1		
C	14	15.9		1			
D	2	5.6					
TOTAL	81	74.5	1	1	1	1	66.7

Table 29. Sherds Recovered from 38AK541, Provenience 7, by Level.

Level	Simple Stamped	Linear Check Stamp.	Cord marked	Eroded $\geq 1/2"$	Crumb $< 1/2"$	TOTAL
A		2	2	1	3	8
B	1			4	2	7
TOTAL	1	2	2	5	5	15

Figure 40. Selected artifacts from Provenience 7, 38AK541 [a-b, e. 7B; c-d, f-g, 7A].

38AK544

38AK544 is a small, Middle Woodland lithic/ceramic scatter located on a well drained hammock within the Fourmile Branch floodplain (Table 30, Figure 41). The site, 10x10 m in size, is located on the eastern portion of the hammock which is surrounded by low-lying, poorly drained soils. A small, unnamed stream separates the western half of the hammock from the ridge side slope of the adjacent landform. The site is currently vegetated with a mixed hardwood/pine forest that is bordered by hardwood dominant vegetation within the poorly drained soils of the floodplain and the unnamed stream.

Table 30. Specifications for site 38AK544.

Cultural Components	<i>Middle Woodland</i>
Descriptive Site Type	<i>Lithic/Ceramic scatter</i>
Site Dimensions	<i>10x10 m</i>
Depth of Cultural Material	<i>0-45 cmbs</i>
Landform Location	<i>Hammock</i>
Elevation AMSL	<i>210 ft.</i>
Elevation Above Nearest Rank 3 Stream	<i>10 ft.</i>
Distance to Water	<i>100 m</i>
Soil Type	<i>Ochlockonee</i>
Soil Classification	<i>Loamy Sand</i>
Soil Description	<i>Well drained, well permeability</i>
Ground Cover	<i>Moderate</i>

Figure 41. Site map for 38AK544.

The site was found while conducting a shovel test transect around the hammock. The initial positive shovel test was established as a datum and ten subsequent tests were dug in a cruciform pattern. Only four flakes and one Deptford check stamped sherd were recovered from three adjacent tests (Table 31). The low density and narrow distribution of these finds indicates a short period of occupation for the site.

Table 31. Artifacts Recovered from 38AK544 by Shovel Test.

Shovel Test	Lithic Debitage		Linear Check Stamped Sherd
	Ct.	Wt.(g)	
1x(1)	3	1.6	1
1x(3)			
2x(2)	1	3.7	
Total			

OCCURRENCES

Occurrence 1

Occurrence 1 is a small biface thinning flake found on a ridge slope while conducting a judgmental shovel test transect 220 m northwest of Fourmile Branch and 50 m west of 38AK538 in the F Tract. Nine additional shovel tests were laid out in a cruciform pattern and another three shovel tests were dug in an attempt to connect the occurrence with site 38AK538. No artifacts were recovered in the cruciform shovel tests and the occurrence was not successfully tied into site 38AK538.

Occurrence 2

Occurrence 2 is a small biface thinning flake recovered from a shovel test pit along a ridge slope 130 m north of Fourmile Branch and 50 m northeast of an unnamed drainage in the H Tract. The occurrence is also located 60 m northwest of site 38BR57. Eight additional shovel tests were dug in a cruciform pattern around the occurrence, however no other artifacts were recovered by this effort.

Occurrence 3

Occurrence 3 is a lithic scatter located on a ridge side slope 280 m north of Fourmile Branch in the H Tract. The assemblage consists of three flakes which were scattered along the edge of a gravel road near wells HSB 145C & D. Three judgmental shovel tests were excavated west of the road edge but none yielded artifacts.

Occurrence 4

Occurrence 4 is a small lithic scatter located on a ridge slope 200 m above Fourmile Branch floodplain in the F Tract. The occurrence is situated between a small Carolina Bay and an unnamed stream 50 m northwest of site 38AK543. Current vegetation is a mixed hardwood/pine forest, with hardwoods dominant along the stream and within the bay. The occurrence was found while shovel testing the ridge line between the stream and bay areas. A cruciform testing pattern was established using the initial positive shovel test as a datum. In all, nine shovel tests were dug yielding only three flakes.

CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS

In this final chapter the sites located in the F and H Tracts are evaluated for their research potential per criteria established by federal legislation. The particular research issues of relevance in this matter stem from ongoing investigations into prehistoric upland land-use in the Aiken Plateau, as discussed in Chapter 2. To begin the process of site evaluation, the sites are compared across the board for content, probable site function, and integrity. Sites deemed sufficiently dense, diverse, and intact to warrant preservation are then compared to similar sites in the Upper Three Runs Creek drainage of the Aiken Plateau, our most thoroughly studied upland area to date. The results of these comparisons bring to light the types of research questions relevant to each of the significant sites.

Comparisons Among Sites in Project Area

Eleven prehistoric sites and one late historic site comprise the inventory of resources in the F and H Tracts. The prehistoric sites exhibit a range of values for size, artifact density, and diversity (Table 32). At one level or another each of the sites represents a location of prehistoric human activity that has some relevance to the reconstruction and interpretation of prehistory. Not all of the sites, however, have equal potential to yield information about human settlement. Sites of relatively large size and with relatively high values for artifact density and diversity are the most likely candidates for habitation sites. Such sites have the potential to yield information on intracamp structure, household economic activity, interhousehold relations, and other aspects of domestic living that will further our understanding of the expanding role of upland settlement in regional settlement systems.

In the tabulation of site data in Table 32, several sites diverge from the rest in measures of size, density, and diversity. Sites 38AK535 and 38AK539 have artifact density values in positive shovel tests (STPs) that are at least twice as great as any other sites. Exceptionally diverse assemblages, measured in terms of artifact richness¹, were recovered from 38AK146, 38AK543, 38AK535, and 38AK541. Relatively large site size characterizes 38AK146, 38AK535, and 38AK541. Cross-tabulating these values, three sites emerge as substantial archaeological resources: 38AK146, 38AK535, and 38AK541. In addition, 38AK543 yielded a diverse, moderately dense assemblage, and, despite its small size, contains at least one buried component that can inform on upland habitations. Finally, 38AK539 yielded a dense, yet low diversity assemblage sample in a small site context, but it contains a Middle-Late Woodland component below the plowzone, a rare find indeed in the Aiken Plateau.

Thus, five sites in the F and H Tracts are believed to represent the remains of small-scale habitations. How do these sites compare to habitation sites investigated in the nearby Upper Three Runs drainage? Table 33 provides some data to address this question. As these show, the F and H Tract sites are generally smaller and less dense than those investigated in Upper Three Runs. The most dramatic difference is site size, where Upper Three Runs sites exceed F and H Tract sites by a sixfold average. In large measure this difference reflects the scalar differences between inhabitable landforms

¹Richness refers to the number of artifact classes present in an assemblage sample. The classes used in this analysis are very general and include pottery, debitage, hafted bifaces, other bifaces, unifaces, hematite, and fire-cracked rock. Sites yielding rich assemblage samples reflect a wide variety of functions, presumably the result of sustained site use by a group of people, minimally a household or two.

Table 32. Recovery Data for Prehistoric Sites Located in the F and H Tracts.

	Components*	# STPs	# Pos. STPs	% Pos. STPs	# Arts/ Pos. STP	Assemblage Richness	Site Size (ha)
F Tract							
38AK146	EW, MW, LW	31	11	35.5	2.4	6	0.95
38AK534	MW/LW	13	1	7.7	1.0	1	0.08
38AK536	MW	10	1	10.0	1.0	2	0.09
38AK538	MW/LW	10	4	40.0	1.3	2	0.02
38AK543	LA, LW, Miss.	17	8	47.1	4.1	6	0.15
H Tract							
38BR57	EW	4	0	0.0	0.0	3	0.14
38AK535	EW, LW	26	8	30.8	6.5	6	0.60
38AK539	MW/LW	14	7	50.0	7.3	3	0.24
38AK540	EW/MW	11	3	27.3	3.3	2	0.02
38AK541	EW, MW, LW	32	11	34.4	2.2	6	0.49
38AK544	MW	11	3	27.3	1.7	2	0.01

*LA=Late Archaic; EW=Early Woodland; MW=Middle Woodland; LW=Late Woodland; EW/MW= Early or Middle Woodland; MW/LW=Middle or Late Woodland

Table 33. Comparisons of Test Unit Artifact Density (artifacts/m²) and Size (ha) for Sites in the F and H Tracts and Upper Three Runs Creek.

	Artifact Density/m ²		Site Size (ha)
	Total	Omitting Debitage	
F and H Tract Sites			
38AK146	52.2	17.8	0.95
38AK535	97.0	47.0	0.60
38AK539	40.0	25.0	0.24
38AK541	125.0	23.8	0.49
38AK543	156.9	62.5	0.15
Mean	94.2	35.2	0.49
St. Dev.	49.0	18.9	0.32
Upper Three Runs Creek Sites			
38AK157	93.0	28.9	2.36
38AK158N	114.2	53.3	*
38AK158S	108.3	58.4	2.50
38AK224	680.1	78.7	4.00
Mean	248.9	54.8	2.95
St. Dev.	287.6	20.5	0.91

*in excess of 10 ha total, but testing was insufficient to define boundaries of clusters within this area.

along the respective creeks. A related factor is size of coresident groups and level of site reoccupation. Obviously, small landforms cannot support large coresident groups. Moreover, reoccupation of small landforms would be spatially constrained, leading to small site size, but dense assemblage accumulation.

Density comparisons between the two site groups support the notion that F and H Tract sites were not as intensively occupied as Upper Three Runs sites. This is reflected in total artifact density, but one site, 38AK224, skews the Upper Three Runs mean values because of a high density of debitage. Omitting debitage from the samples provides a more comparable expression of artifact density. As these data show, Upper Three Runs sites average about 55 artifacts/m² compared to about 35 artifacts/m² at the F and H Tract sites. Variation within each of the samples is not excessive, but the ranges do overlap considerably. That the mean differences reflect differential occupation intensity is underscored by the fact that only one of the F and H Tract sites yielded evidence for components predating the Early Woodland period, while all four of the Upper Three Runs sites contained substantial Late Archaic deposits. Moreover, Early Woodland Refuge phase components are not as conspicuous at the F and H Tracts sites as at the Upper Three Runs sites. Only components of the Middle and Late Woodland periods exhibit equal representation in the two locations.

In sum, the F and H Tract sites differ from Upper Three Runs sites excavated to date in size, density, and components represented. Because the F and H Tract sites are lesser resources, one might argue that their research potential is equally lessened. We do not agree with this position because the F and H Tract sites are not simply smaller versions of the Upper Three Runs sites, they are different resources. Accordingly, the research issues that can be addressed with investigations of the F and H Tract sites involve hypotheses that may help to explain the differences observed. At least three research questions are relevant:

(1) *Why were sites in the Fourmile Branch drainage not as intensively utilized in the Late Archaic and Early Woodland periods as sites in the Upper Three Runs Creek drainage?*

If scalar differences in the size of landforms and associated resources serves to explain differential land-use during the Late Archaic and Early Woodland periods then coresident group size, duration of occupation, and/or economic demand during these periods must have exceeded that of the subsequent Middle and Late Woodland periods. This seems counterintuitive given the growth in regional populations during the Middle and Late Woodland periods and evidence that suggests relatively intensive, semisedentary habitation at riverine sites during the Middle Woodland period. Rather than seek ecological explanations for the differences, we suggest that sociopolitical factors which precipitated expansion of upland settlement in the Late Archaic period (see Chapter 2) precluded intensive use of Fourmile Branch sites. In short, Fourmile Branch sites were too close to the Savannah River to fulfill the needs of group fissioning. Data to test this idea will continue to come from extensive excavations which capture intrasite spatial patterning indicative of household size, interhousehold spacing, local group affiliation, and extralocal relations. In this regard it is important that Fourmile Branch sites be thoroughly investigated for Late Archaic and Early Woodland components. As the excavations of 38AK157 showed (Sassaman 1992), small Late Archaic and Early Woodland components may go undetected at the level of secondary testing. The seeming lack of substantial Late Archaic and Early Woodland occupation along Fourmile Branch will only be confirmed through extensive excavations.

(2) *Why were Fourmile Branch sites not intensively utilized until the Middle Woodland period?*

As demonstrated with survey data (Sassaman et al. 1990), the Middle Woodland period marks the onset of intensive utilization at Fourmile Branch sites. If investigations at such sites corroborate this observation, then we must reconcile the intensive Middle Woodland

use of Fourmile Branch sites vis-a-vis limited use in earlier periods given evidence from Upper Three Runs sites for increasingly intensive upland site use after 4000 B.P. It would be convenient to argue that the resource potential of Fourmile Branch increased at the beginning of the Middle Woodland period, but this does not agree with the established model of increased upland resource potential after 4000 B.P. (Brooks and Hanson 1987; Brooks et al. 1990). Again, sociopolitical factors are implicated. In this case, the strictures that precluded intensive use of Fourmile Branch sites during the Late Archaic period were apparently lifted by 2000 B.P. This time marks the return of intensive riverine occupations in the Savannah River Valley at sites such as Lewis-West (38AK228W), Pie (38BR450), White's Mound, and 38AL2. Might the pattern of Fourmile Branch site-use reflect a more integrated and institutional group organization than evident during the last few centuries of the Late Archaic period (when large riverine sites were abandoned) and the Early Woodland period? Sites such as those in the F and H Tracts provide an opportunity to systematically investigate this issue with data on stylistic variation in pottery, group size, seasonality, and nonsubsistence production. Comparisons with data from riverine habitations like Lewis-West will be instructive on the issues of regional integration and affiliation.

(3) Were sites on the low-lying terrace landforms along Fourmile Branch occupied to take advantage of floodplain habitat for farming or other subsistence pursuits?

As discussed briefly in Chapter 2, investigations to date at Aiken Plateau sites have been limited to sites along the bluff margins of Upper Three Runs Creek. Sites on the opposite, low-lying terrace margin of Upper Three Runs, or any other Aiken Plateau tributary stem, have not been excavated. The F and H Tract sites therefore provide our first opportunity to compare floodplain margin sites with bluff sites. It may very well be that an increase in the use of Fourmile Branch sites in the Middle and Late Woodland periods marks an overall increase in the use of floodplain habitat. Horticultural uses come immediately to mind, but other floodplain uses may be implicated. In any case, the use of such sites is expected to be seasonal, precluding specifically late winter and early spring use due to flooding. Deviations in the composition and spatial structure of floodplain site assemblages compared to bluff site assemblages may be indicative of seasonal utilization, as well as variation in group size and composition, and site-specific functions.

In sum, five of the sites in the F and H Tract are characterized by sufficient content and integrity to provide information relevant to the sorts of questions outlined above. We note that although the sites are not very dense nor very large, their potential to yield relevant data is great. The recent investigations at 38AK157 are a case in point. Although it yielded the lowest artifact density of Aiken Plateau sites excavated to date (Table 33), 38AK157 proved to contain a wealth of artifactual and spatial data for reconstructing site-specific and regionally-relevant aspects of prehistoric occupation, including indirect evidence for habitation structures (Sassaman 1992, 1993). We need only add that many of the F and H Tract sites produced artifact density figures comparable to 38AK157. The differences between 38AK157 and the F and H Tract sites, as noted above, diminishes the chance of analytical redundancy. We stand to gain much new knowledge from investigations of the F and H Tract sites.

NRHP Eligibility and Recommendations

Seven of the 12 archaeological sites located in the F and H Tracts lack sufficient content and subsurface integrity to warrant further investigation or preservation (Table 34). Accordingly, we maintain that sites 38AK534, 38AK536, 38AK537, 38AK538,

Table 34. Evaluation and Recommendations for Sites in the F and H Tracts.

Site	Components	NRHP Eligibility	Subsurface Integrity	Recommendations
F Tract				
38AK146	EW, MW, LW	Yes	Good	Preservation
38AK534	MW/LW	No	Poor	No further work
38AK536	MW, 20th century	No	Poor	No further work
38AK537	20th century	No	Poor	No further work
38AK538	MW/LW	No	Poor	No further work
38AK543	LA, LW, Miss.	Yes	Good	Preservation
H Tract				
38BR57	EW	No	Poor	No further work
38AK535	EW, LW	Yes	Good	Preservation
38AK539	MW/LW	Yes	Good	Preservation
38AK540	EW/MW	No	Poor	No further work
38AK541	EW, MW, LW	Yes	Good	Preservation
38AK544	MW	No	Moderate	No further work

38BR57, 38AK540, and 38AK544 and not eligible for nomination to the National Register of Historic Places and we recommend:

that the Savannah River Field Operations Office of the Department of Energy request from the South Carolina State Historic Preservation Office a determination of no effect from land-altering activities of the F and H Surface Enhancement Project for sites 38AK534, 38AK536, 38AK537, 38AK538, 38BR57, 38AK540, and 38AK544.

Based on arguments of research significance outlined above, five sites in the F and H Tracts are deemed eligible for nomination to the National Register of Historic Places. Thus, for sites 38AK146, 38AK535, 38AK539, 38AK541, and 38AK543 we recommend:

that the Savannah River Field Operations Office of the Department of Energy request from the South Carolina State Historic Preservation Office a determination of no effect through mitigation of adverse effects from land-altering activities of the F and H Surface Enhancement Project for sites 38AK146, 38AK535, 38AK539, 38AK541, and 38AK543.

SRARP archaeologists have already received assurance from engineers of the Surface Enhancement Project that these five sites will be avoided altogether. Adverse effects to these sites will therefore be mitigated through avoidance. The sites have been flagged and located on a GIS layer using the Global Positioning System of the US Forest Service. If future land alteration within the F and H Tracts as defined herein has the potential to impact sites 38AK146, 38AK535, 38AK539, 38AK541, and/or 38AK543 in any way whatsoever, the SRARP must be notified for further evaluation. If preservation through avoidance cannot be guaranteed, the SRARP will provide a research design for data recovery that will mitigate any adverse effects from future land-use in the F and H Tracts.

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