Developmental Zone I

Effective Environment

The Proposed Developmental Zone I is located adjacent to the northern edge of Congaree Swamp, and in the immediate upland environment consisting of sandy loam soils and a dominant community of longleaf pines (Figs. 13 and 14). The slightly undulating topography is dissected by the Clubhouse Road and a small seasonal stream referred to herein as Upland Creek. In addition to providing access into the swamp and the hunting lodge, the road also provides access to the area of game disposal and a large cultivated field (Fig. 15) designed to attract wild game, especially white-tailed deer.

The community of longleaf pines forms a dominant canopy, and probably represents at least twenty or thirty years of growth since the area was cultivated. Various bushes and shrubs, with heights of about six or eight feet, occur sporadically throughout the area. With increasing distance towards the swamp, the pines begin to diminish in number while mixed hardwoods rise as a supplement. Although hardwoods occur on the slopes contiguous with Upland Creek, their frequency is less.

The soils within the area are considerably varied and represent: Persanti, Ailey, Smithboro, and Rains. The Persanti soils consist of deep, moderately well-drained, slowly permeable sandy loams with an appreciable mixture of clay. The surface soils are composed of a fine sandy loam which overlies a yellowish-brown sandy loam, continuing to a depth of about twelve inches below the surface. Beneath the sandy loam the soil becomes a reddish-brown clay with a firm plastic texture to a depth of about twenty inches. Although there is some color change the occurrence of clay continues uninterrupted for several feet.

The Smithboro soils, like the Persanti, occur on higher elevations and support the pine community. These soils are somewhat poorly drained and slowly permeable. The humus layer consists of a dark grayish-brown loam approximately six inches thick which overlies a mottled brown loam. At a depth of about ten inches the soil begins to acquire a clayey texture, which continues for a considerable depth. Constituting the slopes and lower elevations in the area of Upland Creek, the Ailey soils are relatively deep and well-drained, but have slow permeability. Dark, grayish-brown loamy sands represent the humus layer to a depth of about six inches where it is replaced with a light yellowish brown sandy loam which continues down to about thirty inches. Below this soil zone the sandy loam begins to acquire additional clayey deposits with increased frequency.
Figure 13: Proposed Development Zone I.
Figure 13: Proposed Development Zone I.
The Rains series of soils is very similar to the Ailey in depth and structure, but the Rains occurs in the lower elevations associated with Dry Creek. The poorly drained and moderately permeable Rains soils give support to a swampy environment composed of various hardwoods, especially tupelo and sweetgum. Although there has been some movement of soils through erosion and deposition, all four soils were originally deposited in a marine environment created by inundating seas (Lawrence 1978).

The effects of erosion and deposition are difficult to measure, especially when hundreds of thousands of years have passed since the original soil formation. Natural dissection has certainly had pronounced effects on the formation, and during cultivation, soils must have washed down the slopes towards Upland Creek and Dry Creek, possibly creating some of the sandy matrix of both Rains and Ailey soils. The effects of creek flooding during heavy rainfall must also account for some of the sand represented in the Rains soils as Dry Creek enters the swamp floor. However, without extensive geological studies involving sediment studies, the amount of topographical change would be difficult to monitor.

The above soils are broadly divided into well drained sandy loams forming surface deposits with a clayey-loamy subsoil, and poorly drained soils that have a loamy surface layer and a clayey subsoil. While there is good drainage on the slopes during rainfall, the subsoils prevent rapid water absorption thereby creating a prolonged period of dampness in the upper soils. The entire soil series is marine in origin, and while there have been floods of great magnitude in the river valley, there is no indication of alluvial deposition resulting from the Congaree River. Therefore, archeological sites should be relatively shallow, and they should be easily detectable through a program of testing and an inspection of disturbed areas.

Methods of Survey

The intensive survey of the Proposed Developmental Zone I was designed to include: 1) an inspection of all exposed and disturbed soils within the area, and 2) a testing program involving the excavation of aligned test pits. The comprehensive nature of such a program would allow detection of historic and prehistoric sites.

Through the terms of the contract, the following procedure was implemented in regards to testing:

"Extensive and complete examination of all unobscured surface in the development zones is proposed, with excavation of small (ca. 25 cm squares) subsurface tests in forested or grassed areas. These subsurface tests will be placed approximately every 50 meters along parallel transects spaced 50 meters apart. When sites are discovered, an attempt will be made to perform an intensive, controlled surface collection. In
addition, at least one 1-2 meter square test pit will be excavated at each site discovered in the development zones. In general, attempts will be made to gather data on site extent, character, and significance sufficient to determine eligibility for the National Register of Historic Places" (Brockington 1978).

In order to implement the research strategy, the Clubhouse Road was utilized as a base line and was marked with flagging tape at intervals of 50 meters. From these points of vantage a Brunton compass was used for east and west entries into the pine forest. At each 50 meter interval a 25 cm square was excavated to the depth of subsurface clays. In the absence of clay the pits were excavated to a depth of approximately 30 cm. The soil from each pit was carefully examined by hand, scattered for a second inspection, and then backfilled. During the aligned testing program, several wide firebreaks were discovered that offered additional inspection of the subsurface area. The firebreaks were completely walked, in addition to the road systems, the game disposal area, and the cultivated deerfield, all of which provided excellent visibility of the subsurface soils. The combination of these efforts revealed the presence of three archeological sites.

Results of the Survey

The testing program failed to disclose any archeological sites, but by walking the transects and the firebreaks three sites were discovered: 1) the remains of a whiskey still, 2) a near complete whiskey still, and 3) a small prehistoric site.

38RD198 (Old Whiskey Still)

The site is located approximately 200 meters south of the proposed boundary and about 25 meters west of the Clubhouse Road (Fig. 13). Apparently, the site represents the remains of an abandoned whiskey still, exemplified by scattered and broken Mason jars, buckets and pails, a section of pipe, and the remains of rusted and unidentifiable cans. These 20th century artifacts were confined to a relatively small area about three meters in diameter, and situated on the edge of a slight slope facing the road. According to Mr. Guy Taylor, Park Ranger, the still was operable in the last decade, but its detection by the principal leasee of the property caused its abandonment.

38RD199 (New Whiskey Still)

This site is also located approximately 200 meters south of the proposed developmental zone boundary, but it is situated about 50 meters east of the Clubhouse Road and within a pine thicket. The site is lying on the apex of a small ridge composed of Persanti soils, and it is represented by two large steel boilers, several 30 gallon steel drums, intact and broken Mason jars, sections of a black plastic hose, a wire
strainer, and charcoal which resulted from the boiler fires. The areal extent of the habitation appears roughly circular and scattered over a 10 meter area. According to Mr. Guy Taylor, this still represents the reestablishment of the Old Whiskey Still. The still was discovered by authorities and subsequently destroyed. Judging by the collapsed and distorted condition of the boilers, dynamite was probably used in destroying the major components, while axes were used to perforate the remaining containers. The site is 20th century, and according to Guy Taylor, the still functioned within the last decade (see Fig. 16).

38RD197 (The Firebreak Site)

This site is located west of the Clubhouse Road and about 50 meters north of the road leading to the game disposal area. The small occupation is exposed in a firebreak cut (Fig. 17) about 20 meters from the road and on the western slope of slightly elevated ridge. The site is situated between a contact zone of Persanti and Smithboro soils, both of which indicate a shallow layer of sandy loam resting immediately on a mottled clay. The firebreak is about 1 meter wide and extends to a depth of 20 centimeters. The firebreak also traverses the entire length of the slope, and although the area was inspected carefully for additional items of material culture, only the following artifacts were discovered in a 10 meter area:

1. fossiliferous chert thinning flake
2. blocky pieces of shattered quartzite (Fire cracked rock?)
3. small sand-tempered pottery sherds. Although one sherd exhibits incising its temporal placement is difficult because of its small size.

Without other diagnostic artifacts the site is difficult to access in terms of temporal placement and importance. The five artifacts could easily suggest several different occupations separated in time and space, but other interpretations could suggest a single component occupation.
Figure 16: The New Whiskey Still, 38RD199.

Figure 17: The Firebreak Site, 38RD197.
Developmental Zone II

Effective Environment

The Proposed Developmental Zone II is located adjacent to the northern edge of Congaree Swamp and approximately 500 meters east of Developmental Zone I also existing within an environment of longleaf pines and sandy loam soils. The entire area is relatively flat, and while there is a slight slope to the south the relief is hardly noticeable as the elevation falls 10 feet across a distance of about thousand feet. Predictably, the area provides little drainage. Firebreaks and old logging ruts are seen throughout the property and several roads provide access to hunting towers (Fig. 18).

The community of longleaf pines represents at least two stages of regrowth (Fig. 19). The trees in the center of the property are older, with diameters ranging from about 8 to 12 inches (dbh), while pines at the east and west boundary are about 4 to 6 inches (dbh). Within the community shrubs and bushes form occasional impassable clusters, while grasses and sedges in the more open areas dominate the forest floor. Unlike the previously discussed developmental zone, this environment does not demonstrate a quick transition from the uplands to the swamp, but rather the transition is slow as it grades from longleaf to loblolly mixed with occasional hardwoods, and finally to sweetgum, tupelo, and ferns. The ecotone is not contrasted sharply, but rather it is diffused over a large area.

The soils in this proposed development zone are similar to those in the previously discussed zone: Persanti, Smithboro, and Rains. However, the Cantery series appears as a new soil. This new soil is characterized by a deep, poorly drained, and slowly permeable loam. The humus layer is composed of dark gray loam which quickly blends into a sandy loam and continues to a depth of about 6 or 8 inches. Beneath the sandy loam a slowly permeable, sticky clay emerges as the dominant soil.

The northern portion of the property contains a combination of Smithboro and Cantey soils, while the northeast portion is composed almost entirely of Cantey. The central portion, extending past the west and east boundaries, is predominantly Persanti that eventually blends into the Dorovan muck of the swamp floor. A small area of Rains is isolated in the center of the property and is situated as a pocket between Persanti and Dorovan muck (Lawrence 1978).

Although the Persanti soils are usually well drained on slopes, the relatively flat terrain prevents easy drainage. Complementing the drainage problem are the Smithboro, Cantey, and Rains soils, all of which have moderate and poorly permeable basal clays and clayey loams. During rainfall the surface sands absorb water, but the underlying clays retard further absorption, thereby creating puddles of standing water in the logging ruts and primitive roads within the entire upland portion. After a mild rainfall in November the water remained on the surface for at least a day, and even after surface water disappeared, the sandy loams near the surface remained damp for several days.
Figure 18: Proposed Developmental Zone II.
Figure 19: The Immediate Environment at Developmental Zone II.

Figure 20: Typical Firebreaks that Dissect Developmental Zone II.
Method of Survey

The intensive survey of the Proposed Developmental Zone II was designed to include: 1) an inspection of all exposed and disturbed soils within the area, and 2) a testing program involving the excavation of aligned test pits. By following the research design set forth in the preceding section, a base line was established in the center of the pine forest with each control point spaced about 50 meters apart. A Brunton compass was used for determining the east/west directions and 25 cm squares were excavated at each 50 meter interval, including the intervals along the base line. In addition to excavating, a thorough inspection of all road beds, logging ruts, and firebreaks (Fig. 20) was given to the entire area. These procedures of investigation provided a relatively thorough coverage of the developmental zone.

Results of the Survey

The testing program and the reconnaissance of the exposed areas failed to yield any cultural material from either the historic or the prehistoric periods. The soils are all marine in origin, and for the most part the upper layers are loams and sandy loams that rest on shallow clays and clayey loams. River deposited alluvium is not present. If archeological sites exist, any by-products of human habitation would have to occur in the shallow surface soils. However, the intensive survey did not reveal any evidence of human occupation.

Developmental Zone III

Effective Environment

The Proposed Developmental Zone III is located adjacent to the northern edge of Congaree Swamp and about 2 kilometers east/southeast of Developmental Zone II. Situated in an upland environment of sandy loams and mixed pine hardwoods, the zone is contiguous with Cedar Creek Road on the north, the New Road on the west, and Cedar Creek on the south. The triangular-shaped property represents approximately 10 acres, but at least half the area was removed for road fill within the swamp (Figs. 21 and 22).

A great deal of the adjoining areas are presently under cultivation, and based on the various stages of pine growth within the property, it too was probably cultivated in the past. The northern portion of the property supports a small pine forest mixed with sweetgum, shrubs, and bushes that grow densely. The southern edge of the property gives support to an older forest composed of mixed pines and hardwoods such as oak, loblolly, longleaf, and sweetgum. Prior to the removal of soil the ecotone probably represented a continuation of the present mixed forest.
Figure 21: Proposed Developmental Zone III.
Figure 22: The Immediate Environment at Developmental Zone III.  
(Note soil removal for road fill)

Figure 23: Cedar Creek as it flows past Developmental Zone III.
The topography throughout the area is relatively flat, and before the soil was removed, the ground surface apparently sloped slightly prior to its steep descent into the swamp at Cedar Creek (Fig. 23). The adjoining areas demonstrate a similar land form. Persanti soil dominates the entire area and adjoining cultivated fields.

Method of Survey

The intensive survey of the developmental zone was limited because of the wide-scale removal of soil. Nevertheless, a base line was established in the center of the New Road and intervals were established every 50 m. At the first interval a test pit was placed about 10 m from the centerline of the road; the second was placed about 25 m; the third was placed at 50 m, while the fourth and fifth were placed at a distance of 100 m and 150 m, respectively. Immediately after the limited testing, a thorough search of the quarry area and its periphery was conducted.

Results of the Survey

The testing program and the reconnaissance failed to disclose any evidence of historical or prehistorical occupations. If any evidence ever existed, it was probably carried off into the swamp in the form of road fill.