

**PHASE I ARCHAEOLOGICAL SURVEY OF THE
DIGIOVANNI CONSTRUCTION STAGING AREA
NEW CASTLE COUNTY, DELAWARE**

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MANAGEMENT REPORT

**PHASE I ARCHAEOLOGICAL SURVEY OF THE
DIGIOVANNI CONSTRUCTION STAGING AREA
NEW CASTLE COUNTY, DELAWARE**

**PARENT AGREEMENT NO. 729-2
STATEWIDE ARCHAEOLOGICAL RESOURCE PROJECT**

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Washington, D.C.**

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ABSTRACT

The Cultural Resource Group of Louis Berger & Associates, Inc. (LBA) has conducted a Phase I archaeological survey of the DiGiovanni Construction Staging Area, part of the SR 1 corridor in Blackbird Hundred, New Castle County. The Phase I investigations were conducted for the Delaware Department of Transportation, Division of Highways (DelDOT) in compliance with Section 106 of the Historic Preservation Act and other Federal and State historic preservation mandates.

Four archaeological sites previously identified by the University of Delaware Center for Archaeological Research (UDCAR), 7NC-H-92, 7NC-H-94, 7NC-H-96, and 7NC-H-97, were re-identified in the project area. None of these sites appears to have sufficient integrity to warrant further investigation.

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I. Introduction

The Cultural Resource Group of Louis Berger and Associates has recently completed a Phase I archaeological survey of the SR 1 corridor on the DiGiovanni property in Blackbird Hundred, New Castle County. This survey was carried out for the Delaware Department of Transportation, Division of Highways in compliance with Section 106 of the Historic Preservation Act and other Federal and State historic preservation mandates. This section of SR 1 is part of the Pine Tree Corners to Smyrna segment. Although construction of SR 1 from Pine Tree Corners to Smyrna is not imminent, DelDOT proposes to use the DiGiovanni property for stockpiling soil during the construction of SR 1 in St. Georges Hundred. Therefore, the cultural resources within this portion of the SR 1 corridor were investigated at this time.

The DiGiovanni property consists of woods and active agricultural fields surrounding a standing nineteenth- or early twentieth-century farm house (Figure 1). The construction staging activities proposed for the DiGiovanni property do not impact the wooded portion of the property, only the fields and the yard of the house. At the time of the survey the fields were planted in standing corn. The project area, which measures approximately 30 acres, was bounded on the east by US 13 and on all other sides by swampy woods. Herring Run cuts across the project area from north to south, dividing the field along US 13, referred to here as the East Field, from the fields to the west. Herring Run is a perennial stream that was probably once surrounded by substantial wetlands, but it has been channelized and now runs in a deep ditch less than 2 meters across. West of Herring Run the house and several outbuildings sit in the largest field, referred to here as the Center Field. A smaller field to the north is largely separated from the center field by woods, and this is referred to here as the North Field.

An archaeological survey of the SR 1 corridor from Pine Tree Corners to Smyrna was carried out by UDCAR in 1992. However, there were difficulties in obtaining access to the records for UDCAR's work, so the current survey was planned without detailed knowledge of their methods and findings. It was known that prehistoric sites had been identified on the property, because site forms had been submitted to the Delaware SHPO. Detailed records of UDCAR's work were obtained during the course of this project, and the results of their work are described below.

LBA's fieldwork was carried out between September and October 8, 1996. Charles Lee Decker was the Project Manager, John Bedell was the Principal Investigator, Rob Jacoby was the Field Supervisor, Earl Proper was the Crew Chief, and the Field Crew consisted of Wynn Bedall, Bruce Bourcy, Joelle Browning, David Gilmour, Chris Marshall, Jeff Rog, Diane Rog, Laurie Rudder, Rob Shaw, Catherine Skocik, James Skocik, and Paul Stansfield. This management report was prepared by John Bedell.

II. Historical Background

A brief history of the DiGiovanni property was prepared by architectural historians from Kise, Franks and Straw as part of their evaluation of the standing house (Kise, Franks and Straw n.d.). They found that the standing house and outbuildings date to sometime around the turn of the century. (Since no structure is shown in this location on the 1906 USGS Dover quad, the date may be even later.) However, their research showed that the property has a much longer history. The DiGiovanni property was part of a 180-acre tract acquired by Isaac Ratliffe in 1803, and he is listed in a tax record from 1806 possessing land, valuables, and slaves worth \$467. The area that is now Blackbird Hundred, then the southern part of Appoquinimink Hundred, developed much later than the northern part of the hundred because the poorly-drained soil required so much effort to clear and drain (LeeDecker et al. 1996). Ratliffe may, therefore, have been one of the first large farmers in the immediate vicinity. An 1819 tax assessment shows two log buildings on the property, and an inventory of Ratliffe's estate prepared at the time of his death in 1827 lists livestock, farming implements, and personal possessions worth more than \$2100. The heir, also called Isaac Ratliffe, was a minor, and 1834 records from the orphan's court describe the estate as including a log dwelling, a kitchen, a log granary, a smoke house, a carriage house, a hog crib and a log stable. Ratliffe died in 1869, and after that date the property passed into the hands of people who resided elsewhere, so it was presumably let to tenants.

Maps from 1849 on show a dwelling on the DiGiovanni property, ascribed to "Ratlif" on the 1849 Rea and Price and 1860 Beers maps and "Beale" on the 1881 Hopkins map. This dwelling is approximately in the location of the current house, but not quite. Scaling out the Beers and Hopkins maps places the nineteenth-century dwelling 1200 to 1800 feet west of the highway, while the current structure is only 800 feet west of the highway. The maps, therefore, place the Ratliffe/Beale dwelling near the rear of the DiGiovanni property, close to the project boundary.

III. Previous Work

The DiGiovanni Property was surveyed in 1992 by UDCAR as part of their Smyrna to Pine Tree Corners study (Figures 2 and 3). Most of the project area was surveyed by surface inspection in December, with ground visibility of 20 to 30 percent. The wooded areas north and south of the project area were surveyed by shovel testing at 40-foot intervals on transects 150 to 250 feet apart. The yard area around the house was not tested. It is sometimes difficult to reconcile the field notes with the site forms for this work, since the two sets of records show the sites in slightly different locations and indicate different numbers of artifacts found. Since in most cases the site forms record fewer artifacts than the field records, it seems likely that some objects saved by field crew were discarded in the lab, and therefore that the site form counts are more accurate. This discrepancy creates a problem with the boundaries of sites in the surface-collected areas. All surface finds were point-plotted on the field maps as dots, and the boundaries were drawn from the placement of these dots. When the number of dots on the map is greater than the number of finds indicated on the site form, as it is for Sites 7NC-H-92B, 7NC-H-92C, 7NC-H-

92D, 7NC-H-94, and 7NC-H-97B, one has no way of knowing which dots represent discarded objects and therefore what are the true boundaries of the site. The procedure followed here has been to reproduce on Figures 2 and 3 a number of surface finds equal to the number indicated on the site form for the site, but to distribute them so that the boundaries and the distribution of finds remain essentially as they were in the field records.

During this testing UDCAR investigators identified eleven loci of prehistoric activity, which were assigned to four archaeological sites. (The UDCAR field notes describe only loci, so the site designations must have been decided later.) Five loci became Site 7NC-H-92. Site 7NC-H-92A was three positive STPs on the south bank of a tributary of Herring Run in the wooded area south of the project area. Site 7NC-H-92B encompassed several surface finds on the west bank of Herring Run, in the center field. Site 7NC-H-92C was a single positive shovel test and a series of surface finds spanning a large area in the southwest corner of the project area. Site 7NC-H-92D was several surface finds in the center field, overlooking the junction of Herring Run and a small drainage. Site 7NC-H-92E is a mystery. The locus is recorded at the DE SHPO as several surface finds on the west bank of Herring Run, but the field maps and notes record no artifacts found in this location. Site 7NC-H-93 was two groups of positive STPs on the east bank of Herring Run, just north of the project area; a single surface find within the project area in the east field was included in 7NC-H-93A. (Site 7NC-H-93B was several positive STPs in the woods northeast of the project area.) Site 7NC-H-94 is shown on SHPO maps without boundaries. This site drawn in the field notes as encompassing the entire north field. However, finds are indicated in the field notes in only two locations, at the north and south ends of the field, as shown in Figures 1 and 2. Site 7NC-H-97 was two groups of surface finds on high ground east of Herring Run, taking up approximately half of the east field. The farm complex was designated 7NC-H-96.

IV. Phase I Survey

A. Methods

A Phase I archaeological survey must make a good faith effort to locate all potentially significant archaeological resources in the project area. Intensive survey of the entire project area is not required if sufficient information is available to predict the likely locations of archaeological sites. As a result of the extensive archaeological work carried out as part of the SR 1 project by LBA and UDCAR, substantial data on site locations is available (Custer and Bachman 1986; LeeDecker et al. 1996). However, because of the proximity of Herring Run and numerous other wetlands—the project area is bounded on almost all sides by wetlands—essentially the entire project area has high potential for prehistoric archaeological resources. The area along U.S. 13, which follows the route of the old state road, has high potential for historic sites from the 1770-1830 period, in addition to the known Ratliffe occupation. The current survey therefore covered all of the project area, since no areas of low potential were present.

The project area consists almost entirely of agricultural fields, at the time of the survey planted in corn, with a small yard area around the standing house. Surface visibility was minimal throughout the project area, so the survey was carried out by the excavation of shovel test pits on a measured grid at intervals of no more than 20 meters. All shovel tests were mapped onto 1"=100' maps supplied by DeIDOT. Where artifacts were found, additional shovel tests were excavated at 10-meter intervals. A total of 441 shovel tests were excavated during the current project, 280 on the 20-meter grid and 161 at close intervals.

B. Findings

1. *The Center Field*

The Center Field was the largest part of the project area, comprising approximately 15 acres. 135 shovel tests were dug in this field on the 20-meter grid (Figures 4 and 5). Thin scatters of both prehistoric and historic artifacts were found throughout the field, and a substantial concentration of historic artifacts was found in the yard of the standing house. LBA's findings did not exactly correspond to those of UDCAR's surface survey, so it has been rather difficult to assign many finds to the sites and loci established by UDCAR. In brief, finds made in the immediate vicinity of the house, extending east to Herring Run, were assigned to 7NC-H-96, while finds in the fields west and north of the house were assigned to 7NC-H-92.

Site 7NC-H-92, the Herring Run West Site

Shovel testing during the current project confirmed the presence of a prehistoric artifact scatter throughout most of the Center Field. This scatter has been identified with Site 7NC-H-92 as defined by UDCAR, specifically loci 7NC-H-92C, 7NC-H-92D, and 7NC-H-92E. A total of 52 prehistoric artifacts were recovered from these areas. Somewhat surprisingly, the highest densities were not recorded in areas overlooking Herring Run. The yard southeast of the house, high ground overlooking the confluence of Herring Run and a swampy tributary, seemed a particularly likely spot for prehistoric habitation, but no prehistoric artifacts were recovered there. Instead, the majority of the artifacts were recovered from the broad sandy ridge near the western boundary of the project area. Shovel tests excavated here (STPs 1-38 and radials) yielded 34 prehistoric artifacts, including a contracting stemmed chert point from STP 38. This ridge is bounded on the north by a small bay/basin that was dry until a heavy rain midway through the project and a shallow drainage running south from the basin, dry even the day after those heavy rains. South of the ridge are wooded wetlands, and northeast is another small bay/basin, dry throughout the project. This ridge was part of 7NC-H-92C as defined by UDCAR.

A second artifact concentration, smaller but denser, was discovered around STP 64 southwest of the house. This small ridge, separated from the larger ridge to the west by a shallow swale, overlooks wetlands to the south. Eight artifacts were recovered from STP 64 and its radials, and

two others were recovered from STPs 55 and 55c, 30 meters to the northwest. This concentration matches one identified by UDCAR, which they included in Site 7NC-H-92C.

Northeast of the house, a very thin scatter was identified, 6 artifacts on another sandy ridge overlooking a bay/basin and a drainage that runs east toward Herring Run. These finds included a second chert contracting-stemmed point, from STP 60. These artifacts were equated with UDCAR's Site 7NC-H-92D.

Also northeast of the house, on lower ground quite close to Herring Run in the northeast corner of the Center Field, UDCAR had mapped a prehistoric artifact concentration they called Site 7NC-H-92E. In this location LBA recovered only two prehistoric artifacts, but 40 historic.

Almost all the prehistoric artifacts recovered from Site 7NC-H-92 were jasper, quartz, and chert flakes. The only diagnostic artifacts were the two contracting-stemmed points. Two scrapers were found, one in STP 11 and one on the surface near STP 27. All of the artifacts were recovered from the plowzone except for six flakes, one each from STPs 23, 60, and 64a and three from STP 38d. The site appears to represent infrequent procurement activity, possibly concentrated in the early part of the Woodland I period (Late Archaic and Early Woodland). The site lacks integrity and has little information potential.

The historic artifacts from the site appear to represent field scatter, mainly associated with the standing house at 7NC-H-96. The few earlier artifacts, specifically one pearlware sherd and one pipestem, may derive from the earlier Ratliffe/Beale house, but that house was certainly not located within the boundaries of Site 7NC-H-92.

Site 7NC-H-96, the DiGiovanni Site

Site 7NC-H-96 was the designation given by UDCAR investigators to the standing farm complex, also known as N-12810, without carrying out any subsurface testing. They identified the site with the Ratliffe and Beale house shown on historic maps and described it on the site form as "agricultural complex, pre-1849." However, the architectural study of the house and outbuildings showed that they were constructed no earlier than the turn of the century (Kise, Franks and Straw n.d.). The main question to be answered by the archaeological survey was, therefore, whether there was any evidence that the earlier Ratliffe/Beale farm was in the same location as N-12810, or, if not, if there was any evidence of its presence anywhere else on the property. The area around the house currently consists of grassy yard south and southeast of the house and a working yard to the north and west. Numerous outbuildings are located in this working yard, all twentieth-century and all in various stages of decay.

As Figure 4 shows, a scatter of historic artifacts was found throughout the Center Field. These artifacts consisted mainly of bottle glass and whiteware, with a few sherds of redware and stoneware. One sherd of pearlware was recovered from STP 51d, near the northern edge of the

Center Field, and one pipestem was recovered on the surface near STP 64. The only substantial concentration of historic material was in the yard of the house. No distinct trash pits or kitchen midden deposits were found in the yard, but a few STPs did produce rather high artifact counts, including 92 from STP 111a, 48 from STP 120 and 43 from STP 111. These artifacts all appeared to date to the twentieth or late nineteenth centuries. They included bottle glass (the most common artifact), whiteware, Albany-slipped stoneware, and a 1906 penny. No pearlware or pipestems were found around the house. The boundaries of site 7NC-H-96 shown on Figures 4 and 5 were drawn by LBA to separate the almost completely historic deposits around the house from the mixed artifact scatter in the surrounding fields. Because LBA found only historic artifacts east of the house, on the slope leading down to Herring Run, this area, designated by UDCAR 7NC-H-92B, was included in 7NC-H-96. Shovel tests within the site boundaries yielded 458 historic artifacts, 77 percent of the historic artifacts recovered during the project, and only 7 prehistoric artifacts.

One historic feature was located during the testing, a crude stone foundation first encountered in STP 120. The foundation was traced out by probing and several other shovel tests were excavated over and around it (Figure 4). This foundation was one course deep, built of mixed stone and brick, including some yellow conglomerate brick, and pieces of soft concrete were found nearby. The wall was roughly aligned with the current house and about 45 feet (13 meters) long. Very few nails and no window glass were found in the shovel tests excavated over the wall. The location, currently a grassy yard, did appear to have been plowed. Although the function of the structure represented by the foundation is uncertain, it is unlikely to have been an earlier house. The crude, flimsy foundation seems inadequate for the house of a man as well-off as Isaac Ratliffe, and his house would surely have had several windows. An early nineteenth-century house would probably have yielded more artifacts. The conglomerate brick and concrete cannot date from the early nineteenth-century, and although the wall is too disturbed to be certain that they were originally part of it, they do appear to have been. A garage, shed or other outbuilding associated with the standing house seems the most likely interpretation.

The house of a family like the Ratliffes should have left tens of thousands of artifacts; their establishment should have been comparable to the McKean/Cochran farm at Appoquinimink North, 7NC-F-13, where shovel testing produced hundreds of early-nineteenth century objects. No such site is present within the current project area. The only real concentration of historic artifacts encountered was around the standing house, and those artifacts could all derive from the twentieth-century occupation. The simplest explanation is that the Ratliffe/Beale house was actually located west of project area. Several historic artifacts were recovered from the hill along the western edge of the Center Field, in Site 7NC-H-92C, and these could derive from a site in the wooded area to the west.

Site 7NC-H-96 therefore appears to date almost exclusively to the late nineteenth and twentieth centuries. No features were found during the testing other than the shed foundation. Immediately around the house some unplowed deposits were encountered that yielded substantial

numbers of artifacts, but these deposits appeared to contain very recent objects such as soda and beer bottle glass. The site therefore does not have a high degree of integrity for such a recent farm.

2. *The North Field*

The North Field is separated from the center field by a drainage that runs east toward Herring Run and wooded wetlands associated with it. The North Field measures approximately 5 acres and was tested with 58 STPs on the 20-meter grid (Figure 4). Only four historic artifacts were recovered in this area. Nineteen prehistoric artifacts were recovered, all of which were assigned to Site 7NC-H-94 as defined by UDCAR.

Site 7NC-H-94

Site 7NC-H-94 is shown on the SHPO maps without boundaries, but on UDCAR's field maps it encompasses the entire North Field. However, finds were only recorded in two locations, at the north and south ends of the field, as shown on Figures 1 and 2. For convenience these are here designated Loci A and B. The most substantial concentration of prehistoric material recovered by LBA, 10 flakes from 7 positive STPs, matches the location of Locus A at the north end of the field. This location is the northern half of a sandy hill, overlooking forested wetlands to the north. Artifacts were recovered from sandy soils below the plowzone in two STPs, 240 and 250a. A second artifact concentration was found 60 meters (200 feet) to the south, around STPs 269 and 280. Six artifacts, all flakes, were recovered from five positive STPs in this location, which has been designated Locus C. This locus is situated on a nearly imperceptible ridge, bounded on the east by a steep gully. All of these artifacts were recovered from the plowzone. Two flakes were recovered from STPs 232 and 232d, an area designated Locus D. Nothing was recovered from STPs in the vicinity of UDCAR's Locus B, but a possible quartz scraper was recovered from the surface in that location. Site 7NC-H-94 appears to represent infrequent procurement activity in nearby wetlands, and it has very little integrity or information potential.

3. *The East Field*

The East Field is bounded on the east by US 13 and on the west by Herring Run, which separates it from the Center Field. The field measures approximately 10 acres in area and was tested with 86 STPs on the 20-meter grid (Figure 5). Nothing was recovered from the southern half of the field, which was very low and wet. Forty prehistoric and 41 historic artifacts were recovered from the northern half of the field, all equated with UDCAR's Site 7NC-H-97.

Site 7NC-H-97, the Herring Run East Site

Site 7NC-H-97 comprises two loci where prehistoric artifacts were found during surface collection in 1992. Locus A, which measured 40 by 70 meters (130 by 220 feet), was located

on low, poorly drained ground adjacent to Herring Run at the southern end of the field. According to the site forms, all six of the artifacts recovered here were fire-cracked rock. Locus B was much larger, measuring 110 by 140 meters (350 by 450 feet), and the field maps records 16 finds in this area. However, the site form lists only a single flake and six pieces of fire-cracked rock.

Nothing was recovered from the shovel tests in the vicinity of Locus A. The soil here was very mucky and had wetland characteristics, and before the channelizing of Herring Run it must have been even wetter. It seems an unlikely place for prehistoric occupation.

A fair amount of historic and prehistoric material was recovered near Locus B, in the northern half of the field. Much of the ground here was higher and sandier than in Locus A, although a few artifacts were recovered from wetter ground quite close to Herring Run. Most of the historic material appears to be a field scatter associated with the standing house at 7NC-H-96. The one exception is the 29 pieces of bottle glass recovered from STP 154, which appears to represent trash dumped along the driveway.

The prehistoric finds were divided in field into two groups. On a sandy ridge overlooking Herring Run, and on the slope down to the stream, 27 prehistoric artifacts were recovered from 17 positive STPs. All of the artifacts were flakes except for a contracting-stemmed jasper point from STP 183. This concentration spans areas included by UDCAR in Site 7NC-H-97B and 7NC-H-93A, as well as the space between them. Because no gap was noted during the current investigation, all of the finds were associated with Site 7NC-H-97. All of the artifacts were recovered from the plowzone except for two flakes that were recovered from a sub-plowzone disturbance, probably a rodent burrow, in STP 198.

A second artifact concentration was noted in the northeast corner of the field, on a higher part of the same landform. Four artifacts were recovered from STP 212, as well as 3 from STP 212d and 2 from STP 212c, the highest prehistoric artifact density encountered during the project. Forty meters to the north, four artifacts were recovered from STP 218 and two of its radials, three of these artifacts from below the plowzone. This concentration has also been designated Site 7NC-H-97C. This locus is more than 100 meters (350 feet) from Herring Run. However, the DiGiovanni driveway runs just south of the locus through a shallow drainage that may have been an intermittent stream before the construction of US 13 cut off areas to the east.

C. Summary

The DiGiovanni project area measured approximately 30 acres in extent, all of which was judged to have high or moderate potential for prehistoric archaeological resources. The portion of the east field within 120 meters of US 13 was judged to have high potential for historic sites from the 1770 to 1830 period, and a farm belonging to Isaac Ratliffe was established by 1806 somewhere in the vicinity. The entire project area was shovel tested at 20-meter intervals, which

required 280 STPs. A total of 441 shovel test pits were excavated during this project. A total of 118 prehistoric and 592 historic artifacts were recovered during the project.

Almost all of the historic artifacts recovered during the testing appear to be associated with the known, 20th-century occupation of the property. Too few earlier artifacts were found for the earlier Ratliffe/Beale house to have been located in the project area. The few early artifacts, including the single sherd of pearlware, are probably field scatter associated with a house outside the project area to the west. Because of the recent date of the historic deposits and their low integrity, no further investigation of the historic resources is warranted.

The prehistoric sites all appear to represent procurement activity in the extensive surrounding wetlands. The only diagnostic artifacts recovered were three contracting-stemmed points, a type most common in the Woodland I (Late Archaic and Early Woodland) periods, suggesting that the area may have been most intensely used in the 3000 to 500 BC period. Of the 118 prehistoric artifacts recovered, 106, or 90 percent, were recovered from plowzone contexts. Because of the low artifact densities and lack of integrity, no further investigation of the prehistoric resources of the DiGiovanni property is warranted.

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