

Appendix C:
HISTORICAL COMPONENT

**Patrick O'Neill, Laurie Paonessa, Christopher Sperling,
and Christopher Bowen**

Table of Contents

APPENDIX C: HISTORICAL COMPONENT..... 1

Historical Overview 1

Historical Land Use 9

Archaeological Investigations 25

 Historical Features 25

 Historical Artifact Assemblage..... 28

 Historical Artifact Distribution..... 35

Site Summary 38

REFERENCES CITED 39

List of Figures

Figure C-1. The King’s Road through the Project Area in 1749..... 4

Figure C-2. Roads in the Blackbird Area in 1820. 5

Figure C-3. 1876 Map Showing the Railroads near Blackbird, Delaware. 7

Figure C-4. 1737 Survey of Edward Fitzrandolph’s Land. 10

Figure C-5. 1803 Survey of James Murphy’s Estate. 14

Figure C-6. The Blackbird Creek Site Area and Bassett Ferguson Farmsteads in 1849. 16

Figure C-7. 1858 Survey of Bassett Ferguson’s Estate, Tract No. 3..... 17

Figure C-8. 1858 Survey of Bassett Ferguson’s Estate, Tract No. 2, Widow’s Dower, 9
Acres. 18

Figure C-9. The Blackbird Creek Site Area in 1868. 20

Figure C-10. The Blackbird Creek Site Area in 1881. 21

Figure C-11. Aerial Photograph of the Blackbird Creek Site Area in 1926..... 22

Figure C-12. Location of the Blackbird Creek Site on the Terrace above Blackbird
Creek in the Early 1990s..... 23

Figure C-13. Flat Brass Waistcoat Button, Stamped Back..... 35

Figure C-14. Silver Spanish Reale Coin Dated 1810. 35

Figure C-15. Horizontal Distribution of Historical Post Features and of Historical
Artifacts within Shovel Tests..... 37

List of Tables

Table C-1. Chain of Title for Blackbird Creek Site.....	11
Table C-2. Historical Post Feature Attributes.....	26
Table C-3. Historical Artifact Frequency by Type.	28
Table C-4. Temporally Diagnostic Historical Artifacts by Type.	31
Table C-5. Historical Artifact Distribution by Stratum.	36

APPENDIX C: HISTORICAL COMPONENT

The historical component of the Blackbird Creek Site (7NC-J-195D) was determined not eligible for the National Register of Historic Places (NRHP) because it lacked intact historical features and cultural material that would contribute to pertinent regional research questions. Archival records of land use and the resultant material record were valuable, however, for aiding in the interpretation of the impacts to the Native American components of the site. A record of land ownership from the late 1730s to the present was compiled to provide background information for the evaluation of the historical artifact assemblage.

Archival research consisted of a records search, review of historical maps, and regional and local historical background research. Land use planning documents, as well as deed, tax and census records at the New Castle County Building in Wilmington and the Delaware Public Archives in Dover, provided information concerning the historical development of individual site locales. Acts of the General Assembly, Clerk of the Peace Records, and books, historical maps, photographs, and probate records were reviewed at the Delaware Public Archives, the Delaware Historical Society in Wilmington, and the Library of Congress in Washington, DC. Information on the Blackbird Historical District was obtained from the National Register Nomination form on file with the Delaware State Historic Preservation Office (DESHPO). The gathered information allowed researchers to prepare a chain of title and site history for the project area. Aerial photographs from 1926, 1937, and ca.1970 were compared to historical maps from 1849, 1868, 1881, 1893, and 1931 for correlation to the archival record.

Historical Overview

The Blackbird Creek Site was located in the southern portion of New Castle County. The boundaries of New Castle County were set by an act of the General Assembly in 1775 (Heald 1820). The county was divided into nine hundreds, the largest of which was Appoquinimink Hundred at the county's south edge. Appoquinimink Hundred was bounded on the north by the creek bearing the same name. Blackbird Hundred, bounded by Duck Creek on the south and by Blackbird Creek on the north, was created from Appoquinimink Hundred in 1875 (Conrad 1908:565 and 571). The Blackbird Creek Site was situated within Blackbird Hundred. The Blackbird Hundred region was densely wooded until the mid-to-late 1800s and, historically has been referred to as the Forest of the Appoquinimink.

Almost 400 years have passed since Henry Hudson sailed into the Delaware Bay and up to the mouth of the Delaware River. As the waters of the Delaware became shallow, Hudson decided the river could not constitute the westward passage to the orient that he sought. Accordingly, Hudson continued further north along the Atlantic coastline, eventually exploring the river that would eventually bear his name. Soon afterwards, colonists began arriving in the peninsula and establishing a permanent presence. Dutch Captain Cornelis Hendricksen visited Delaware many times from 1614 to 1629, and in

1629, Patroons began to colonize near Cape Henlopen (Doherty 1997:3). The region of Delaware south of Bombay Hook was called Swaanendael (or Zwaanendael) and an attempted settlement by Dutch in 1631 failed (Heite and Heite 1985:5). Swedish immigrants erected Fort Christina on the Upper Peninsula to the north in 1638, and the Dutch established a settlement at Fort Casimir on the Delaware River near modern-day New Castle to block a Swedish advance into the rest of Delaware (De Cunzo and Catts 1990:9).

New Amstel (New Castle) became the county seat under Dutch rule in 1654, and a Dutch military presence forced the Swedes to relinquish power to them in 1655, although many of the Swedish and Finnish settlers remained. The Dutch were soon inundated by English settlers, and tension between the two factions flared for many years. As early as 1669, proprietors were encouraging settlers from northern New Castle County and eastern Maryland to come to the Apoquimini (Appoquinimink) region (Scharf 1888:1015).

In 1669, Lord Charles Calvert I, third baron of Baltimore, created Durham County as part of Maryland encompassing much of present-day Delaware creating a hostile atmosphere between Maryland and Pennsylvania (Doherty 1997:51; Demars and Richards 1980:4-5). The Dutch began to regain control of the area and New Castle County (originally titled New Amstel) was organized in 1673, extending from Christina Creek to near Leipsic Creek (Long 1996:13). However, Holland ceded many of its possessions extending from New York to Delaware to the English in 1676, when Delaware was placed under the jurisdiction of the Duke of York, with the top seat of government in New York (Harbeson 1992:17).

The Duke of York, James Stuart (also a brother to Charles II), granted a large tract of the Delmarva peninsula to William Penn in 1682, which Penn referred to as the lower three counties of Pennsylvania (Doherty 1997:3-4; Custer et al. 1987:43). Penn divided Delaware into townships that would contain 100 families, each of which contained approximately ten members. The townships were referred to as “hundreds”, a political designation originating in the Roman Empire over 1,000 years ago, and have remained intact in Delaware to modern times (Zippe 1968:2). Appoquinimink Hundred, named after a Native American term *Appoquinimi*, meaning wounded duck, and Duck Creek Hundred were two of the 12 original hundreds created for Delaware; presently there are 33 hundreds in the State (Doherty 1997:5; Conrad 1908:565).

Both Penn and Lord Baltimore claimed the Blackbird area (Bedell 1996c:5-6). Dispute over control of Delaware between Pennsylvania and Maryland clouded the regional land patents for many years, and as a result, the south and west portions of Delaware were granted many Maryland patents (Russ 1966:12-13). Baltimore’s grants were contested by Pennsylvania authorities well into the 18th century, by which time Lord Baltimore’s son lost the claims (Demars and Richards 1980:4).

Mechaeksit, *sachem* for the local Native Americans, sold land to many early settlers that came to the Appoquinimink area prior to the Penn family land sales (Conrad 1908:571-572). It is assumed these land tracts were honored by Penn and the local governments, as

a few of the identified men, such as Morris Liston of Liston's Point on the Delaware River, were prominent local citizens in the late 1600s (Conrad 1908:572). The land grants issued in the Delaware prior to the 1750s, were mainly the result of the influx of the Swedish and English immigrants in the upper Delaware and Philadelphia, Pennsylvania region (De Cunzo and Catts 1990:11-12).

Present-day Odessa was originally settled in the 1660s when Augustine Hermann constructed the famous "Hermann's Cart-Road" (Schwartz 1980:20). Then tiny village was originally referred to as Apoquemene, Appoquinimink, and Appoquinimink Bridge (Schwartz 1974:6-7). Richard Cantwell, son of the first High Sheriff of New Castle County Edmund Cantwell, was given permission to construct a ferry across the Appoquinimink Creek in 1731 and charge a toll, and the name Cantwell's Bridge was coined, lasting until 1855 (Schwartz 1974:9). The road connecting Cantwell's Bridge (Odessa) on the Appoquinimink River north of Blackbird to Bohemia to the west, was constructed in the 1660s, the first major road in the region, and this created an opportunity for immigration from that region to Appoquinimink Hundred (Passmore 1978:10). Blackbird, the only large settlement in the Forest of Appoquinimink, was founded around 1738 where the King's Road crossed Blackbird Creek (Bedell 1996c:6). Two roads came into the Blackbird community from the north, one from Newark and Glasgow, and one left Blackbird (the King's Road) for Smyrna on Duck Creek and Dover on the St. Jones River.

The King's Road was the main thoroughfare between Dover and the northern portions of the state. The road was already established by 1749 (Figure C-1). A review of the land tracts between Blackbird Creek and Smyrna Creek Landing indicates that the term "King's Road" was used predominately throughout the 1700s. The labels of "Great Road" or "Main Road" were used sporadically in the latter half of the 18th century, and State Road or Public Road was utilized during the entire 19th century. After the road was improved for modern traffic use, it was referred to as DuPont Boulevard or Dual State Highway, and later as State Route 13.

Three other roads led to the main road near Blackbird Village area by 1820 (Figure C-2). The village was clustered at the intersection of the main road with a road coming from the southwest. Edward Fitz Randolph, an officer in the French and Indian War, was one of the first residents of the Blackbird area (Pryor 1975:24). Benjamin Donoho constructed a hotel on the east side of the King's Road, which became a stagecoach stop and unofficial post office (Pryor 1975:24). Ira E. Lyons built a dam across Blackbird Creek west of town and constructed a grist mill in 1780 (Scharf 1888:1027). The mill was owned next by Auley Lore and was recognized for a high quality of white corn meal (Pryor 1975:25). A saw mill was added by the 1840s, and both mills were operating on steam and water power by the 1880s (Scharf 1888:1027).

Delaware had a population estimated at 25,000 in 1770, which more than doubled by 1790 to 59,046, but did not double again until 1860 (Unknown 1989:6 and 57). The Blackbird community claimed a population of 50 in 1865 (Talbot 1866:59).

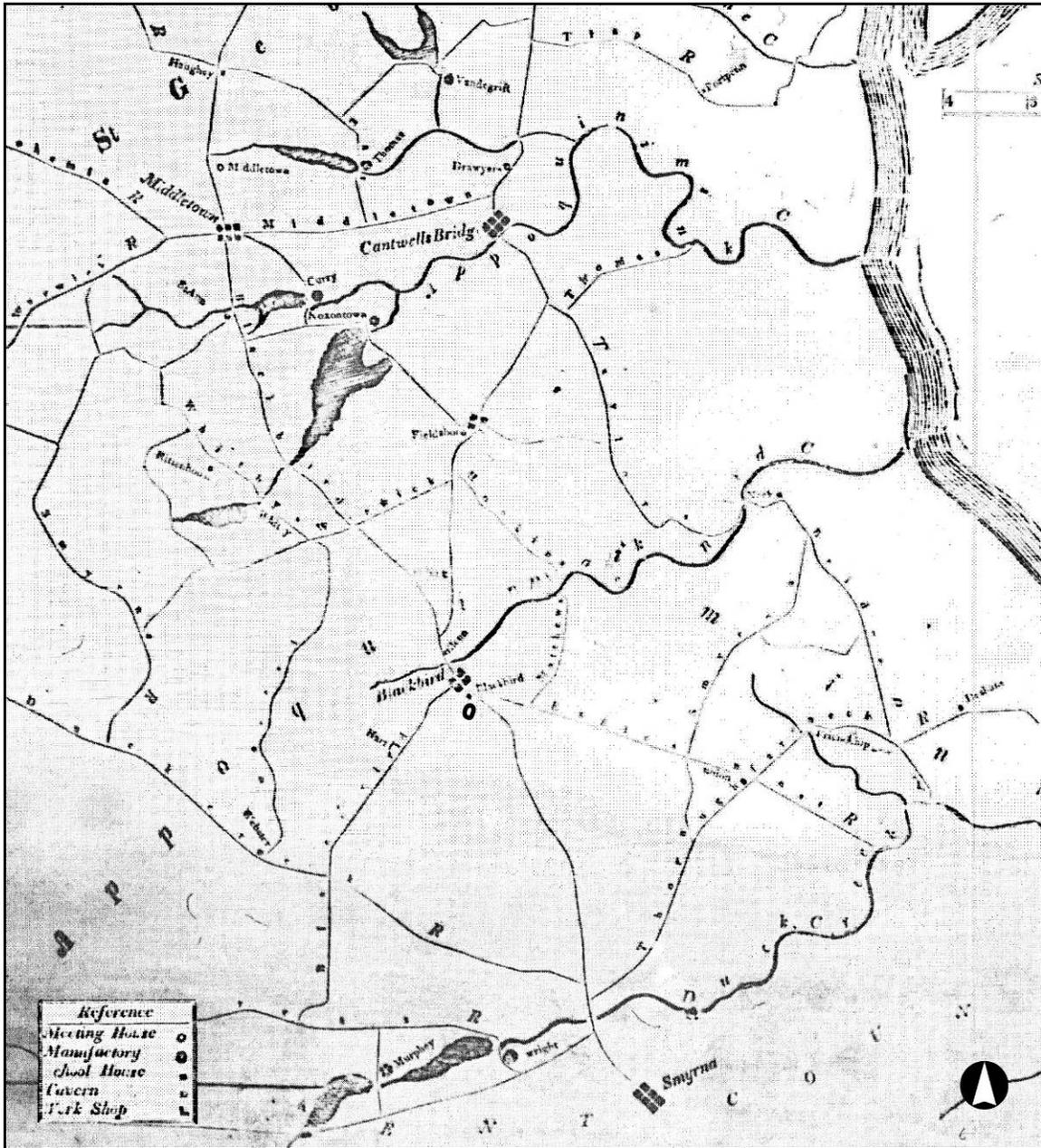


Figure C-2. Roads in the Blackbird Area in 1820.
(Heald 1820)

In 1682, a canal was cut across the upper portion of Bombay Hook to allow Duck Creek to flow directly into the Delaware River instead of curving south for 12-to-13 miles (Pippin 1995:70). The waterway made Bombay Hook an island instead of a peninsula, and has been named Bombay Hook Island ever since that time (Scharf 1888:1030). The water transportation routes from the Duck Creek and Smyrna landings to the Delaware River, as well as the King's Road, allowed the farmers on either side of Duck Creek, including the present study area, to participate in the growing agricultural economic

growth in the region. Several plausible canals were proposed to connect the Chesapeake Bay to the Delaware Bay around 1800, including one to connect the Chester River in Maryland to the Appoquinimink Creek just east of Cantwell's Bridge, but only the Delaware Canal was ever constructed across the entire state (Munroe 1986:Fig. 1).

The rise of agriculture in Delaware was encouraged in that each farmstead could be located within twelve miles of a navigable river or creek (Munroe 1954:27). Much of southern New Castle County has been continuously cultivated for over 300 years (Passmore 1978:8). According to contemporary periodical advertisements, Kent County and New Castle County farmers in the early-to-mid-18th century cleared an average of 30 percent of their land parcels; the rest of the tract was left in marsh, meadow or woods (Catts et al. 1995:98). Many farms were owned by absentee landowners, and the houses on the land were rented or leased to tenants. Advertisements appeared in the local paper to rent entire farms with descriptions of the land and buildings (Hancock 1987:46-47).

Most of the residents of New Castle County in the 1700s were farmers, growing corn, rye, and wheat as principal crops. Grist mills were some of the earliest industries in the area, and many became the hub of small hamlets or towns as early as 1658 in New Castle (O'Connor et al. 1985:13-14; Shaffer 1988:15). The first recorded mill in the Appoquinimink Hundred was at Noxontown prior to 1736 (Scharf 1888:1022). The farms were successful and slowly the northern part of Kent and New Castle counties were able to shift from a subsistence oriented economy to a market-based economy by the middle of the 18th century. The grist and flour mills of Brandywine Hundred near Wilmington, in particular the Thomas Lea and Joseph Tatnall families, helped to bring financial growth to northern Kent and southern New Castle counties in the mid-1700s, and are credited with helping establish milling interests in the United States (Welsh 1973:79; Scharf 1888:786-787). Early mills were first constructed on the Brandywine in 1729, but it was not until Lea and Tatnall's attempts in the 1760s, that the waters of the river could be fully utilized for mill works (Conrad 1908:563-564). The mills controlled most of the exports to the West Indies and other places in the late 1700s, as a result of stiffer regulations and taxes in Pennsylvania and Philadelphia (Scharf 1888:787).

Cantwell's Bridge received local grains and other products for export from a 12-to-15 mile radius (Schwartz 1980:32; Kushela n.d.:7). Six granaries with a total capacity of over 30,000 bushels were along the Appoquinimink Creek by 1825, and between 1820 and 1840, over 400,000 bushels of wheat were shipped through the community (Schwartz 1980:32). The harvested grains from the Blackbird community were shipped to Cantwell's Bridge on the Appoquinimink Creek five miles to the north, as well as Duck Creek Landing and Smyrna Landing on Duck Creek five to eight miles to the south.

Iron deposits in New Castle County were discovered in the mid-1700s, and soon processing sites were established (Harbeson 1992:18-19; Heite 1974:18). Samuel James established a forge in the New Castle County in 1723, supposedly the first in the mid-Atlantic (Shaffer et al. 1988:21). The forges required an immense amount of fuel, and since coal was not locally available, the primary forests were harvested to produce

charcoal (Passmore 1978:14). Mine owners either purchased thousands of acres outright or at least the rights to work the land solely for the harvest of the timber.

Farmers learned in the early 1700s to rotate crops and tobacco grown on freshly cleared ground while grains, such as wheat, corn, and rye, were grown mainly on previously tilled ground (Passmore 1978:22). However, farming practices in Delaware had still quickly leached the sandy soils of the major nutrients and led to the almost complete destruction of the topsoil by the 1830s (Passmore 1978:16). James C. Booth's "Geological Survey of Delaware" provided wonderful insight to the Delaware farmers to reconstitute their soils, and he is praised with saving agriculture in the region (Booth 1841). Booth correctly identified that the nutrients in the soils of the entire Delmarva peninsula were being depleted and he encouraged farmers to add burned and crushed oyster shell and marl to their fields (Passmore 1978:17). Marl, a compact clay-sand deposit containing ancient sea shells, had been discovered in New Castle County while dredging canals. From the early 1840s to the Civil War, marl increased crop productivity on almost all areas of application, sometimes as much as 400 percent (Passmore 1978:17). By the 1880s, other fertilizers, such as improved lime and ground crab, were used, and modern technological advancements in crop rotations and nitrogen fertilizers helped bring Delaware into the world agricultural markets (Passmore 1978:7-19).

The coming of the Philadelphia, Wilmington, and Baltimore Railroad through Blackbird in 1856 enabled the non-coastal central regions of Delaware to be settled (Figure C-3; Passmore 1978:7; Zippe 1968:83-84). The smaller towns in rural central Delaware were then able to send their goods directly to interstate markets by train rather than by wagon and carts via the nearby seaports, such as New Castle and Wilmington. The railroad allowed all industries to expand at a fast growth rate (Harbeson 1992:21).

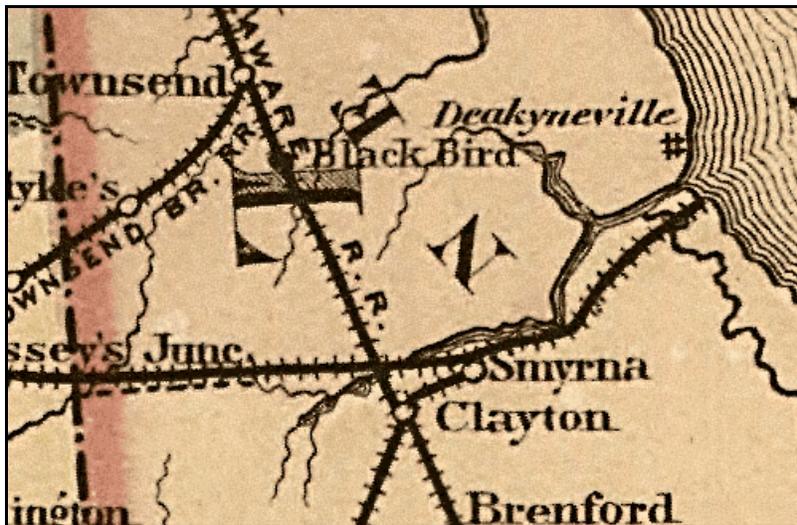


Figure C-3. 1876 Map Showing the Railroads near Blackbird, Delaware.
(Gray 1876)

Since the early settlements, residents of the State of Delaware have desired to drain the low-lying swampy regions and expand the agricultural prospects of the region. As early as 1680, Delawareans have constructed drainage systems to accommodate the wet areas (Passmore 1978:19). Many of the ditch systems constructed in the 1700s and early 1800s were deepened and cleaned out in the 1930s by the Work Projects Administration (WPA) (Passmore 1978:19). Marshes and swamps still covered more than 50 percent of Blackbird Hundred by 1875 (Zippe 1968:73). By the end of the 19th century, draining the numerous marshes to reclaim the land for producing grain products was important to the residents of the Hundred (Scharf 1888:1023-1024). Still, a problem with soils reoccurred in the 1930s, and more drainage ditches were cleaned and fixed (Passmore 1978:20).

Wheat was the main agricultural crop in New Castle County during the colonial period, but as early as 1839, it was beginning to be replaced by the fruit industry (Passmore 1978:24; Schwartz 1980:32). The center for the peach industry was primarily in New Castle County, but by the 1880s, blight was destroying the industry (Zippe 1968:78). Kent County was known for apples, and the berry industry became popular in Sussex County. Sussex County grew more strawberries in 1902 than any other county in the country (Passmore 1978:72-73). People immigrated to Delaware for the new agricultural industry from as far away as Forest, Ontario, including many Irishmen (personal communication with Michael McGrath in September 1999). Richard Brockson constructed a building in Blackbird Village in 1882 in which he placed an evaporator, for drying fruit (Scharf 1888:1027). The peach dryer employed over 30 people during the height of the peach picking time, for six weeks per year (Pryor 1975:25; Scharf 1888:1027). The operation produced 16,000 pounds of fruit per season in the 1880s, for shipping mainly to New York and Philadelphia (Scharf 1888:1027). Migrant workers, referred to as Peach Plucks, harvested the fruits for 75 cents a day with meals and a place to sleep, usually on a haystack or in a barn. The Just Right Canning Company operated to the northeast of Blackbird at Blackbird's Station, and another cannery was located to the southwest of town near Greenspring. Tomato blight and competition after World War II ended the large-scale fruit industries in the community (Pryor 1975:25).

By 1900, Rhode Island had a population of more than three times that of Delaware, even though the latter was almost twice as large in area, another indicator of the slow economic and population growth of Delaware (Unknown 1989:57). New Castle County's population was over 123,000 by 1914 (Atkinson Co. 1914: 5). Roughly 83 percent of the county's land was farmland in 1914. The average size of the 2,208 farms in the county was 106 acres.

The 1920s and 1930s saw the development of the famous Delmarva broiler chicken industry in southern Delaware, which, since 1934, has produced over half of the farm income for Delaware farmers (Passmore 1978:58). The success of the chicken industry has been credited with helping local farmers weather the Great Depression. The poultry industry relied on the grains produced in the region to thrive, keeping the grain producers financially afloat.

Delaware farmsteads often contained several tenant dwellings to house the hired hands directly on the farm tracts; many times, these tenements were in close proximity to the main farmhouse (Passmore 1978:8). The thick Delaware forests provided timber for log and frame houses, and also were logged to clear the land for farming. Forests were still plentiful in the mid-1700s, but the true effects of deforestation were being felt in Delaware in the early 1800s (Catts et al. 1995:100). In reviewing deed transcriptions, the use of corner-marked trees in the late 17th and 18th centuries was replaced by the presence of stumps and saplings by 1800, which were in turn replaced by stakes and stones, or references to where a particular corner-marker was formerly located (Catts et al. 1995:100). The deed descriptions can be utilized to identify trees types as well as document the advent of deforestation for almost 200 years. In the 20th century, many of the early colonial farms had been reclaimed by the forests and had reached maturity to provide another phase of timber industry (Passmore 1978:10).

Historical Land Use

As previously mentioned, The Blackbird Creek Site was located in Blackbird Hundred, within an area known as the “Forest of Appoquinimink”, which was a 36-square mile land tract patented by William Penn and Lord Baltimore. The site was situated on a 124-acre tract patented by Edward Fitzrandolph in 1737 (Figure C-4). A chain of title for the property is provided in Table C-1. The warrant for the survey dated October 1737, indicates that Fitzrandolph had already begun to build on his land located between Blackbird Creek and Sandom Branch (New Castle County Warrants and Surveys 1737a, 1737b). Part of Fitzrandolph’s property included a small triangular parcel, bounding on Blackbird Creek, which he had obtained from Johann Wardiman at an unknown date prior to the survey. Wardiman’s land, the New York Patent, appears to have originally been granted in January 1675 by the Duke of York to James Williams, Persifell Wasterdell, and John Barnes (Pryor 1975).

Fitzrandolph, who had formerly served as an officer during the French and Indian War, was a yeoman. He probably resided on his property between Blackbird Creek and Sandom Branch with his wife Susanah until 1749. In February of that year, Fitzrandolph sold the portion of his land situated on the east side of the King’s High Road, to John Chapple, a yeoman of the city of Philadelphia (New Castle County Deed Book [NCCDB] 1749: 278). Chapple retained the property until 1758 when he sold it to Thomas Murphy (NCCDB 1758: 478). The Blackbird Creek Site is located on the land sold by Chapple to Murphy.

The property remained in the Murphy family until the early-19th century. It appears that the property had descended to James Murphy by the late-18th century. James Murphy was married to Catharine and they had a son named Thomas. James Murphy died intestate before 1802. By this time his son, Thomas, also had died and his widow, Catharine, had married Patrick Lyons. Catharine and her second husband, Patrick, had two daughters: Hester (or Hetty) who married Joseph Webster, and Catharine who married David Howell. By 1802, Hester Webster had died leaving her husband and two children, Dickinson Webster and Catharine Webster. Thus, in August 1802, a petition to

divide James Murphy's 200-acre property was entered in the Orphans Court by David Howell. It was requested that Murphy's 200 acres descend to the daughters of Catharine Lyons, since James Murphy's son had died and left no heirs. In addition, since Hester Webster also had died, her portion was to descend to her children, Dickinson and Catharine Webster. The Court approved the petition and ordered the property divided in September 1802. Five "freeholders" and a surveyor were chosen, and the Court directed them to divide the property "having regard to quality and quantity without prejudice to or spoiling the whole." As a result, Murphy's property was divided into two tracts and illustrated on a plat (Figure C-5). Tract A, totaling 119 acres, was granted to Joseph Webster, husband of the late Hester, and their children. Tract B, containing 82 acres, was granted to David and Catharine Howell (New Castle County Orphans Court Records, Murphy 1802-03).

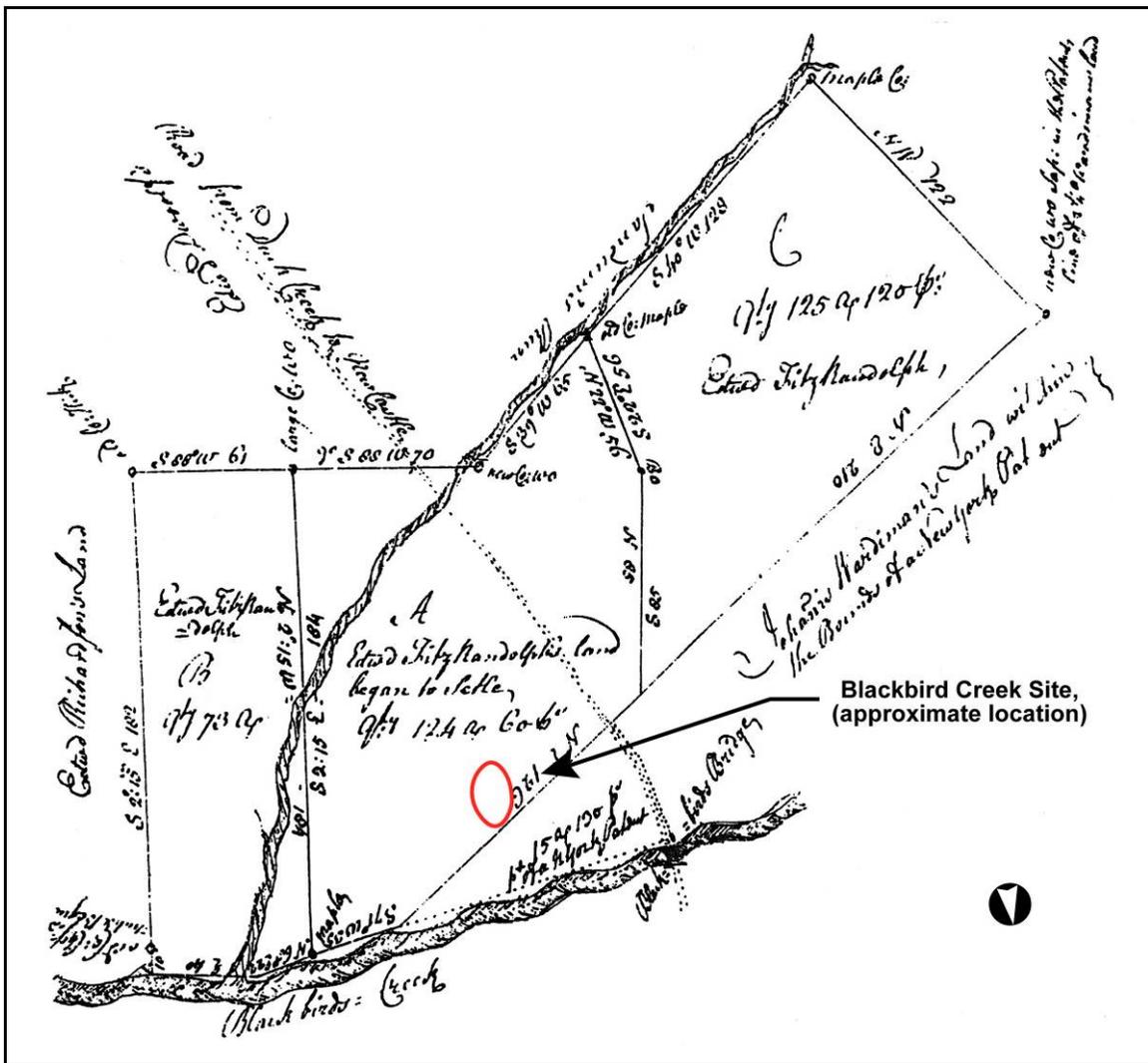


Figure C-4. 1737 Survey of Edward Fitzrandolph's Land.
(NCC Warrants and Surveys 1737)

Table C-1. Chain of Title for Blackbird Creek Site

<i>Instrument Date</i>	<i>Grantor</i>	<i>Grantee</i>	<i>New Castle County Book (Volume): Page</i>	<i>Acres</i>	<i>Price</i>	<i>Land Description/ Comments</i>
October 11 and 24, 1737	John Penn, Thomas Penn, and Richard Penn, Esquires, Proprietors of Pennsylvania and New Castle County	Edward Fitzrandolph, yeoman	Survey warrant October 1737 (1737a,b).	--	--	Patents for two tracts between Blackbird Creek and Sandom Branch. Mentioned in 1749 deed.
February 20, 1749	Edward Fitzrandolph, yeoman, and wife, Susanah	John Chapple, yeoman	Deed Q (1): 278	3 adjacent parcels, 170 Acres	250 pounds	East side of King's High Rd. to Blackbird Bridge, and South of Blackbird Creek. Begins at a corner of John Richardson's land where James Egberts now dwells. Two parcels Fitzrandolph. Patented from Penn's; 3rd patent from Duke of York January 15, 1675.
May 23, 1758	John Chapple, shopkeeper, and wife, Martha	Thomas Murphy	Deed S (1): 478	2 tracts: 170 Acres [& 200 Acres]	250 pounds	170-acre tract = plantation by King's High road; to Blackbird Bridge; down Blackbird Creek to corner of John Richardson's land.
June 1772	Thomas Murphy, innkeeper	James Murphy (son of Thomas)	Will K (1): 37	None stated	None: bequeath	All his real and personal estate, after the death or remarriage of his wife, Sarah. Will written June 1767.
1803	James Murphy estate	David Howell & wife, Catharine (nee Lyons; daughter of James Murphy's widow)	Orphans Court: Murphy (1802-1803)	82 Acres	None: inheritance	Tract B of the division of James Murphy's estate. James Murphy died intestate, and his land was divided by direction of the Orphans Court.
May 1810	Isaac Cannon, innkeeper, and wife, Catharine (widow of David Howell, remarried)	Benjamin Donoho	Deed X-3:570	82 Acres	\$1,200	One acre of land fronting on the public road adjacent to Robert Herriage reserved for Isaac and Catharine Cannon (containing their new house and garden).

Archaeological Investigations at the Blackbird Creek Site

<i>Instrument Date</i>	<i>Grantor</i>	<i>Grantee</i>	<i>New Castle County Book (Volume): Page</i>	<i>Acres</i>	<i>Price</i>	<i>Land Description/ Comments</i>
May 1811	Benjamin Donoho estate	William and Henry Richard Donoho (sons of Benjamin)	Will Q-1:442	--	None: bequeath	Will written April 1811. Left five children. Bequeathed the plantation he lived on in Blackbird and “the houses and appurtenances thereon” to his sons.
October 1838	Henry R. Donoho	Bassett Ferguson, storekeeper	Deed C-5: 45	82 Acres	\$1,500	William Donoho died 1836. Includes the tavern house, the dwelling houses, barns, stables and other improvements. Excludes a 1-acre reservation for the Cannons, a 1-acre tract for Martha Donoho, and a 5-acre tract for Rebecca Donoho.
September 1858	Bassett Ferguson estate	Richard Ferguson (son of Bassett)	Orphans Court Ferguson 1858	74 Acres	--	Bassett Ferguson died intestate November 1853, leaving wife, Susan and 7 surviving children. Land divided by Orphans Court. Tract No. 3 (74 Acres valued at \$1,222) assigned to Richard Ferguson.
1898	Richard Ferguson estate	Theodore Ferguson	Deed S-17:53	74 Acres [& 40 Acres]	\$2,000	Richard Ferguson died ca. 1898 intestate. Administrator = brother, Colen. Orphans Court 1898 ordered land sold to pay debts. Includes Tracts 3 (74 Acres) and 4 (40 Acres) of Bassett Ferguson estate. Sold at public auction.
January 1899	Theodore Ferguson	Colen Ferguson	Deed Y-17-203	74 Acres [& 40 Acres]	\$2,000	Includes Tracts 3 (74 Acres) and 4 (40 Acres) of Bassett Ferguson estate.
1917	Colen Ferguson estate	Martha E. Phillips (daughter of Colen Ferguson)	Will G-4:319	74 Acres	None: bequeath	Colen Ferguson died August 1917. Will dated July 28, 1917. Land formerly belonging to his brother, Richard. Also bequeathed to her, his 160-acre farm at Blackbird Station (bought from George W. Miller) and 45 acres adjoining Blackbird Village (formerly Richard’s).
May 1938	Martha Phillips and husband, V. Lay Phillips	Alvin J. Davis	Deed X-40:378	48 Acres	\$3,000	Portion of the 60 acres.

Archaeological Investigations at the Blackbird Creek Site

<i>Instrument Date</i>	<i>Grantor</i>	<i>Grantee</i>	<i>New Castle County Book (Volume): Page</i>	<i>Acres</i>	<i>Price</i>	<i>Land Description/ Comments</i>
1943	Alvin Davis and wife, Mary G	Charles William Cullen	Deed Z-43:104	48 Acres	\$10+	--
1944	Charles William Cullen	John A. Hutchinson and wife, Dorothy	Deed K-44:256	48 Acres	\$5,500	--
March 1951	John A. Hutchinson and wife, Dorothy	Casimir Boc and wife, Doris	Deed C-51:60	48 Acres	\$10+	--
1952	Casimir Boc and wife, Doris	Charles W. Good and wife, Elsie	Deed K-52:14	48 Acres	\$10+	--
June 1966	Elsie Good (widow)	Russell Kayfield and wife, Edith	Deed E-77:574	48 Acres	--	--
September 1967	Russell Kayfield and wife, Edith	Donald E. Anthony and wife, Lillian	Deed O-79:158	48 Acres	\$26,500	--
1976	Donald E. Anthony and wife, Lillian	Earl E. Leasure and wife, Phrilla	Deed D-93:231	48 Acres	\$62,000	--
October 1992	Earl Leasure and wife, Phrilla	State of Delaware	Deed 1414:189	48 Acres	\$314,000	Parcel no. 173

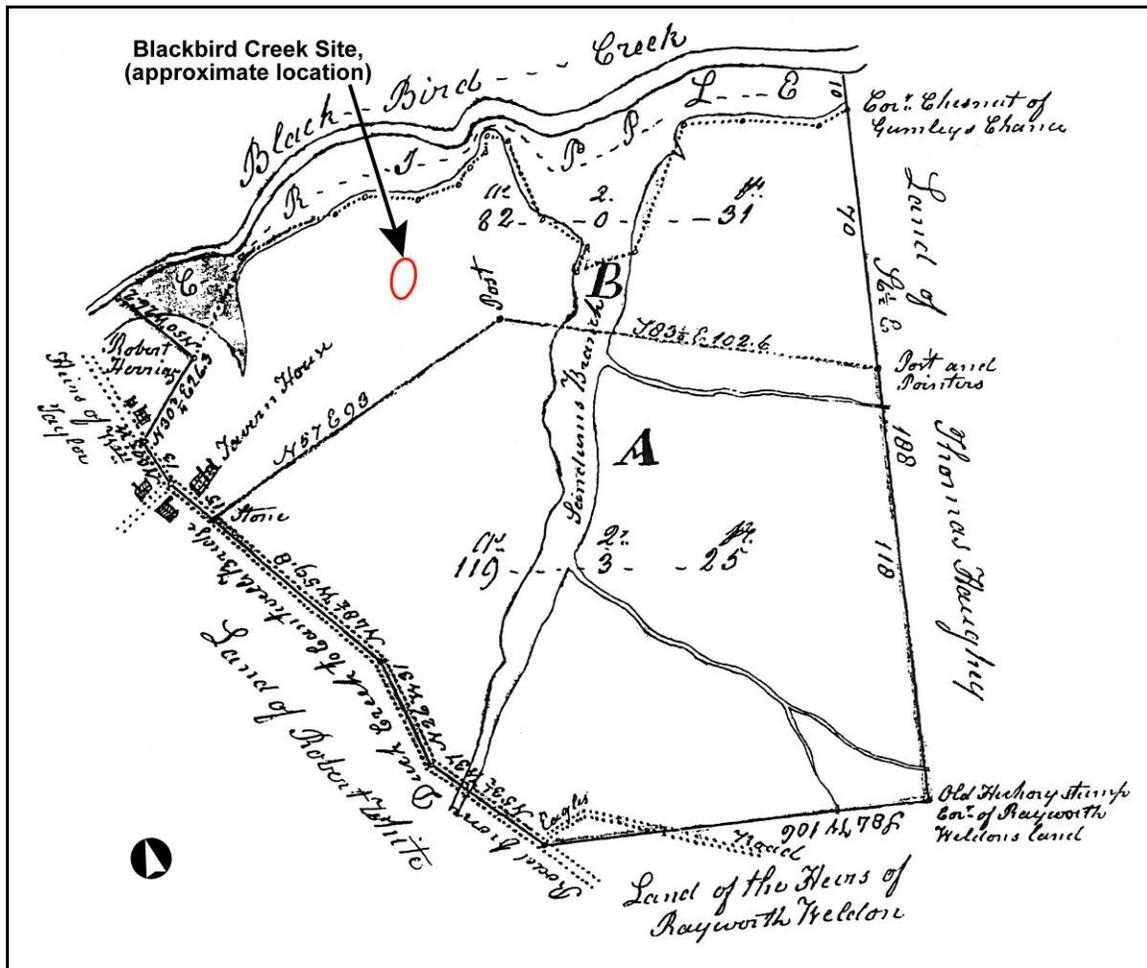


Figure C-5. 1803 Survey of James Murphy's Estate.
(NCC Orphans Court Records, Murphy 1802-1803)

The Blackbird Creek Site was situated on Tract B. Tract B bordered Blackbird Creek and extended west to the increasingly important intersection of King's Road and Blackbird Forest Road. Situated on this tract was a tavern, apparently in operation prior to 1803. The tavern fronted on King's Road, and was situated just south of the intersection of King's Road (old Route 13) and Blackbird Forest Road (see Figure C-5). By 1810, David Howell had died and Catharine had married Isaac Cannon. The tavern remained in operation, with Isaac Cannon as innkeeper. In 1810, Isaac and Catharine Cannon sold the 82 acres to Benjamin Donoho of Appoquinimink Hundred for \$1,200. A reservation was made in this 1810 deed for one acre of land fronting on the public road, where Isaac and Catharine Cannon had constructed their new house and garden (NCCDB 1810:570). Catharine later married a third time but did not have children. (Pryor 1975)

Benjamin Donoho died a year later in May 1811. He was survived by his wife, Mary, and their five children: William, Henry Richard, Martha, James, and Rebekah. In his will dated April 1811, Benjamin Donoho bequeathed the plantation he lived on in Blackbird

and “the houses and appurtenances thereon” to his sons William and Henry Richard. He stated that this was the land that he purchased from Isaac Cannon. To his daughter, Martha, he granted one acre of land and a house, on the eastern part of the same property, previously owned by David Howell. To his daughter Rebekah, he granted five acres with a house, previously owned by Robert Herridge (see Figure C-5). Donoho devised \$200 to his son, James. Finally, he requested that his wife, Mary, be taken care of by their two eldest sons (New Castle County Will Book [NCCWB] 1811: 442). An appraisal of Donoho’s personal estate was made in June 1811, totaling over \$983. The property included livestock (4 cows, 4 horses, 2 goats, 8 hogs, and geese), a riding chair, a wagon, furniture, a looking glass, etc. (New Castle County Probate Records, Donoho 1811).

Benjamin Donoho had constructed a hotel on this property that his son, William, continued to operate until his death in 1836 (Scharf 1888:1028). Benjamin Donoho did not specifically mention this building in his will, nor did he mention the old tavern. In October 1838, Henry R. Donoho, the deceased William’s brother, sold the 82 acres to Bassett Ferguson for \$1,500 (NCCDB 1838: 45). There are several reservations made in this deed, including the one-acre reservation for the Cannons, a one-acre tract for Martha Donoho, and a five-acre tract for Rebecca Donoho. However, the sale does include the tavern house, the dwelling houses, barns, stables and other improvements on the remainder of the property (NCCDB 1838: 45). This deed described Bassett Ferguson as a storekeeper of the village of Blackbird.

The property remained in the hands of the Ferguson family for the next 100 years. Bassett Ferguson was married to Susan T. Weldon and they had twelve children. In addition to operating a store, Ferguson also worked as a farmer. In 1838, he was appointed as the first postmaster of Blackbird. The post office was operated at the hotel located on the 82 acre tract. During Ferguson’s ownership, the hotel was managed by Israel Townsend, James Fountain, Stephen Townsend, William M. Johnson, and John Silcox. The old hotel was abandoned in 1841 and converted into a residence. A new hotel was built in 1841 and was still in use in the 1880s (Scharf 1888: 1028).

In 1849, Ferguson was elected as a state senator and represented New Castle County at the General Assembly. He is described in Scharf as “a man unassuming in manner, possessed of a large amount of sound common sense, and held in the highest respect by his friends and neighbors” (Scharf 1888:1027, 1028). The 1849 Rea and Price map identifies two properties and farmsteads of Bassett Ferguson: on the north side of Blackbird Creek east of the main road, and south of Blackbird Creek east of Sandom Branch (Figure C-6). The former farmstead was closer to the Blackbird Creek Site and was the location of Bassett Ferguson’s residence (Scharf 1888:1027).

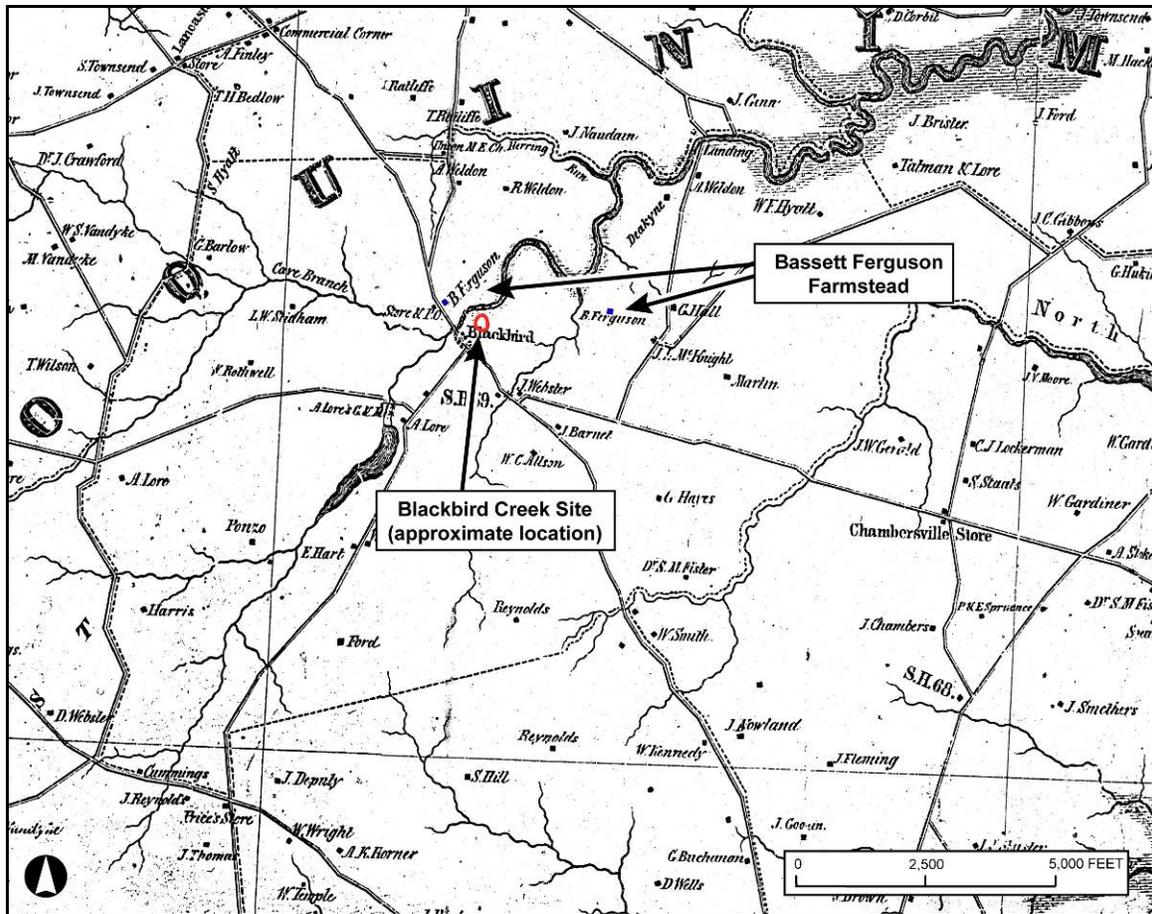


Figure C-6. The Blackbird Creek Site Area and Bassett Ferguson Farmsteads in 1849
(Rea & Price 1849)

In November 1853, Bassett Ferguson died intestate, leaving his wife Susan and seven surviving children. At the time of his death, he owned three tracts. One of the tracts totaled approximately 83 acres and included the farm and tavern property. The Blackbird Creek Site was situated on this tract. Ferguson also owned 200 acres on the north side of Blackbird Creek and a 40-acre tract west of Blackbird. Ferguson still lived on the tract north of Blackbird Creek at the time of his death (Scharf 1888:1027). The division of Ferguson's property was made in the Orphans Court (New Castle County Orphans Court Records, Ferguson 1858). His three tracts were divided into four. The ca. 82-acre tract, which included the tavern and farm, was divided into two tracts, one measuring 74 acres and the other 9 acres. The 74-acre parcel, described as No. 3, contained the Blackbird Creek Site (Figure C-7). Lot No. 3 was assigned to Bassett's son, Richard Ferguson and was valued at \$1,222. No buildings were shown on the 74 acres, which had a narrow strip accessing the main road.

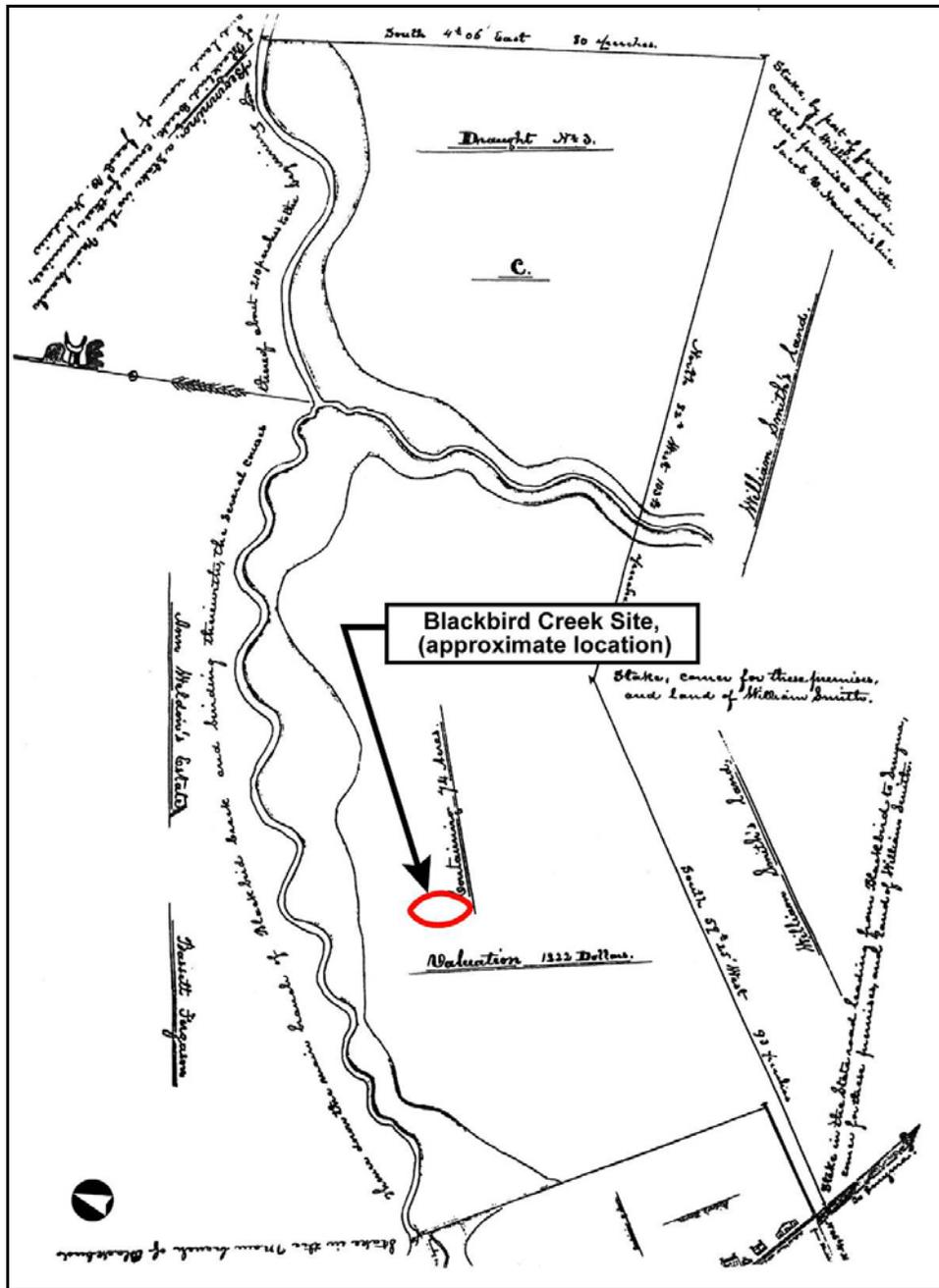


Figure C-7. 1858 Survey of Bassett Ferguson's Estate, Tract No. 3.
(NCC Orphans Court, Ferguson 1858)

The 9-acre parcel, described as the Widow's Dower, was reserved for Bassett's widow, Susan Ferguson. This parcel fronted on the Public Road and was bounded by Blackbird Creek to the north and the 74-acre parcel to the east (Figure C-8). Seven buildings are illustrated on the plat, clustered near the T-intersection of the main road with the road to Price's Corner. This T-intersection was the heart of Blackbird Village.

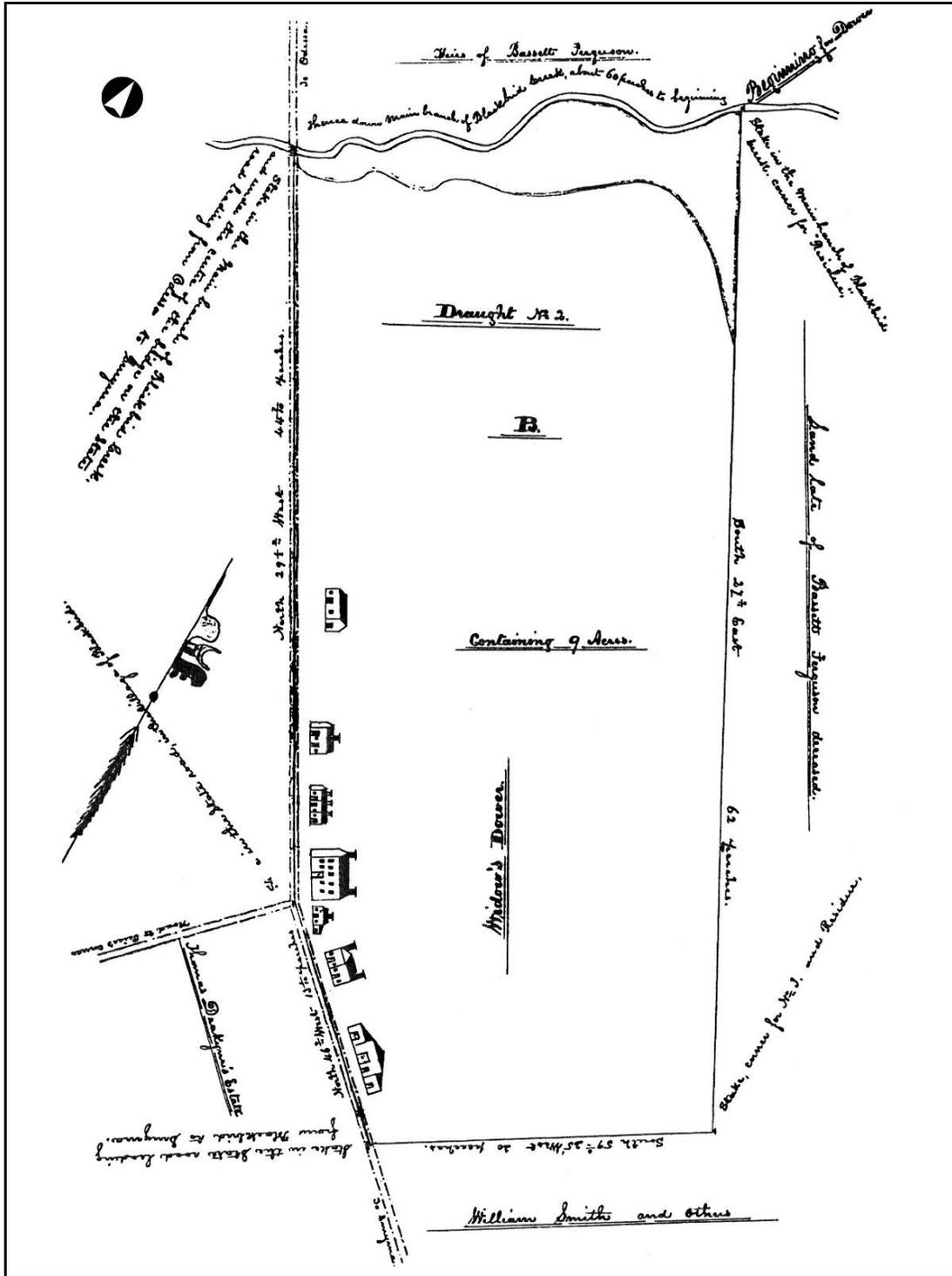


Figure C-8. 1858 Survey of Bassett Ferguson's Estate, Tract No. 2, Widow's Dower, 9 Acres. (NCC Orphans Court, Ferguson 1858)

Tract 1 of Bassett Ferguson's estate, totaling 200 acres north of Blackbird Creek, was assigned to his son, Colen Ferguson (NCC Orphans Court Records, Ferguson 1858). The

Ferguson family home was on the 200 acres, and Colen (born in 1835) returned to the farm in 1858 after working as a clerk in Odessa for two years (Scharf 1888:1027). He resided on the tract in the family homestead, and farmed the 200 acres, which included thousands of peach trees by the 1880s. Colen married Cordelia Lord and also served in the State Legislature (Scharf 1888:1027-1028). The SR1 corridor passed through the farm, to the east of the farmstead.

Tract No. 4 (40 acres west of Blackbird) of the Bassett Ferguson estate also was assigned to Richard Ferguson (NCC Orphans Court Records, Ferguson 1858). Richard Ferguson was Bassett's eldest son and married Bathsheba Deakyne, the daughter of Thomas Deakyne (Benenson 1986: 108). Richard served in the state senate, was a merchant in Blackbird Village after his father's death, and farmed his ca. 75 acres (including the Blackbird Creek Site) adjoining the village (Benenson 1986: 108).

The 1868 Beers Atlas illustrates six buildings fronting on the main road, including a hotel, store, and blacksmith shop, on land which was part of the Widow's Dower; no structures are shown within the project area (Figure C-9). Around 1866, Susan Ferguson (Bassett's widow) remarried, to V.O. Hill. Hill rented the hotel on the property to Leonard Crouse and William E. Price until 1869, and served as the hotel's proprietor into the 1880s (Scharf 1888:1028).

A house was added to the project area parcel by Richard Ferguson between 1868 and 1881 (Figure C-10; Hopkins 1881). The house was at the end of a long driveway that connected the house to the main road to the southwest. The driveway appears to be within the narrow strip of land that connected the parcel to the main road in the 1858 plat of Bassett Ferguson's land (see Figure C-7). The house was situated south-southeast of the Blackbird Creek Site and remained standing until the late-20th century. The project area and Ferguson farmhouse were depicted similarly in 1893 as they had been in 1881 (Baist 1893).

Richard Ferguson retained Tracts 3 and 4 until his death in ca. 1898. Richard did not leave a will, and his brother, Colen, was named administrator of his estate. Richard Ferguson's case came before the Orphans Court in May 1898 where it was decided that his property should be sold to repay his debts (New Castle County Orphans Court Records, Ferguson 1898). Colen Ferguson initially sold the properties to Theodore Ferguson for \$2,000, and a year later, Colen bought them back at the same price (NCCDB 1898: 53; NCCDB 1899: 203). Theodore Ferguson was most likely the eldest son of Colen.

Colen Ferguson died in 1917, leaving his widow and four children: Ella Ferguson of Blackbird; Theodore Ferguson of Blackbird; Bassett Ferguson of Ridley Park, Pennsylvania; and Martha Phillips of Smyrna. In his will, he devised three farms to his daughter, Martha Phillips (NCCWB 1917: 319). The farm including the Blackbird Creek Site was 60 acres valued at \$2,100 and the three farms together were worth \$9,420 (New

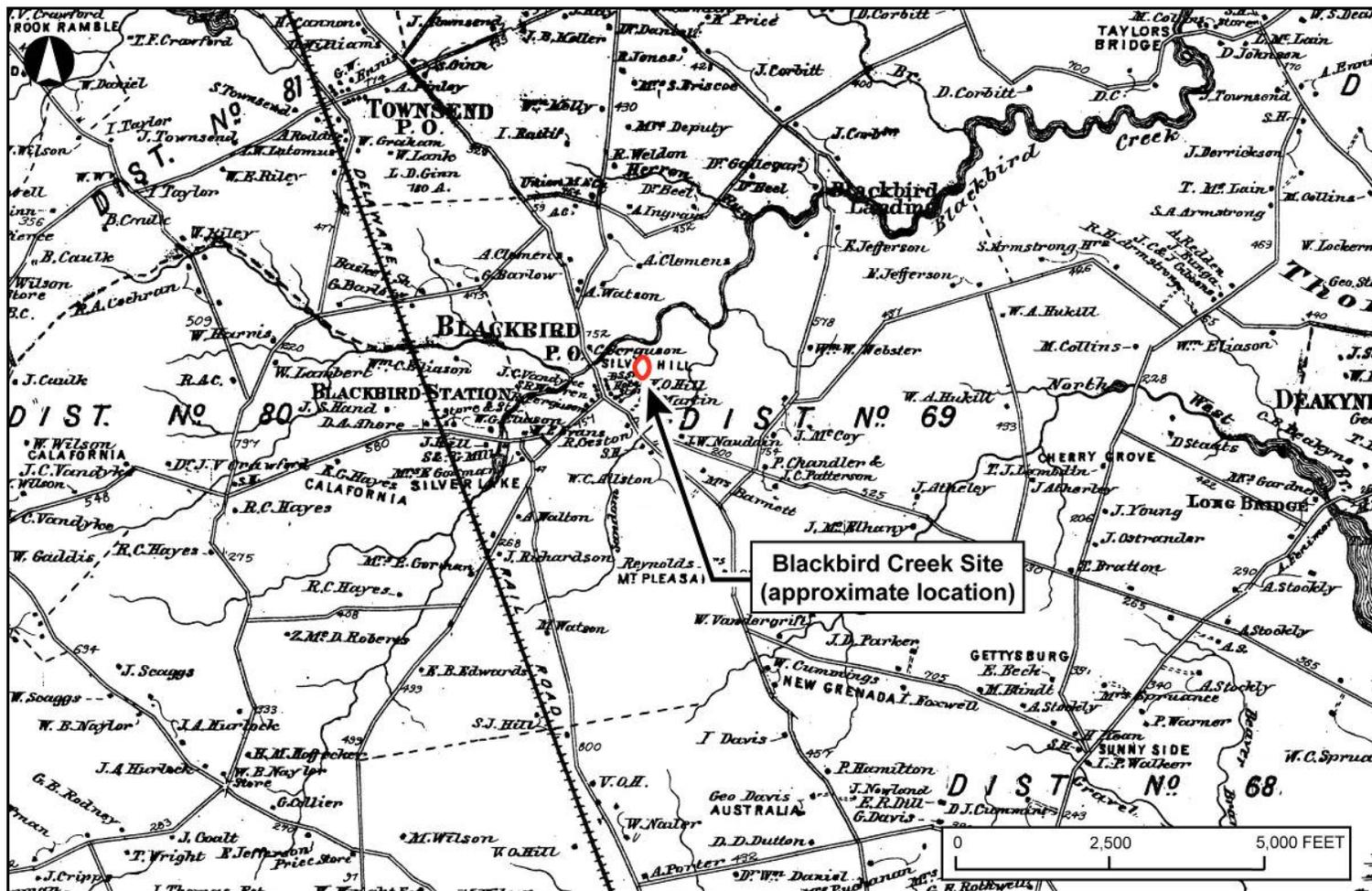


Figure C-9. The Blackbird Creek Site Area in 1868.
(Beers 1868)

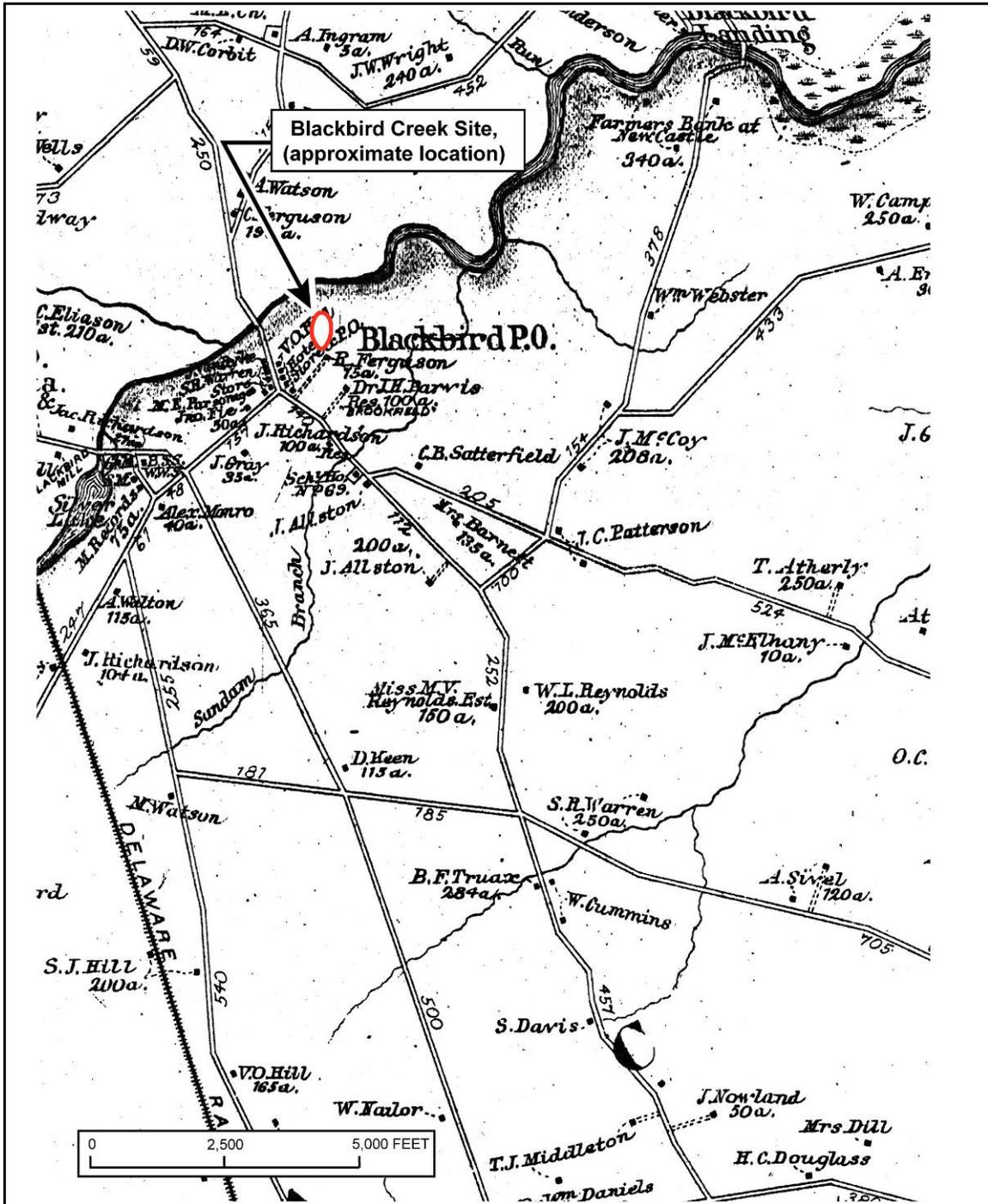


Figure C-10. The Blackbird Creek Site Area in 1881.
(Hopkins 1881)

Castle County Probate Records, Ferguson 1917). Colen bequeathed farms and woodland valued from \$8,000 to over \$11,000 to each of his other children as well.

Archaeological Investigations at the Blackbird Creek Site

An aerial photograph of the project area taken in 1926 depicts the farmhouse and outbuildings clustered near the end of the driveway (Figure C-11). The land to the north, east, and west of the complex was farmland; this land includes the Blackbird Creek Site. South of the buildings complex was the neighboring farm property, containing the Buckson Site (Site 7NC-J-207). The wetlands bordering Blackbird Creek and Sandom Branch were wooded. This same pattern of land use was noted in an aerial photograph taken in 1937 (DelDOT 1937).

In May 1938, Martha Phillips and her husband, V. Lay Phillips, sold 48 acres of the tract including the project area to Alvin J. Davis of Sharon Hill, PA for \$3,000 (NCCDB 1938: 378). In 1943, Alvin Davis and his wife Mary G. of Sharon Hill, Pennsylvania, conveyed the same land to Charles William Cullen, a single man of Blackbird Hundred (NCCDB 1943: 104). A year later, Cullen sold the property to John A. Hutchinson and his wife, Dorothy for \$5,500 (NCCDB 1944: 256). In March 1951, the Hutchinsons sold the land to Casimir Boc and his wife Doris (NCCDB 1951: 60).

Land Use Summary

The land containing the Blackbird Creek Site was part of a 124-acre tract patented by Edward Fitzgerald in 1737. By 1802, the parcel had been combined with two more tracts: approximately 98 acres patented by Fitzrandolph in 1737, immediately east of the 124 acres; and 15 acres patented by Johannis Hardiman . In addition, the portion of the 124 acres on the west side of the main road (King's Road) had been sold, leaving roughly 200 acres on the east side of the main road. The 200-acre parcel was divided among the heirs of James Murphy in 1803; the northern new tract with 82 acres contained the Blackbird Creek Site. One building was depicted on a plat of the 200 acres: a tavern on the west end of the 82 acres, on the east side of the main road. The cleared land on the 200 acres in February 1803 was divided into two fields (NCC Orphans Court, Murphy 1802-1803). The "inside fencing," presumably dividing one field from another, was then

standing on the southern tract of roughly 119 acres. The Orphans Court decreed that the two sets of heirs should each take up one-half of the inside fence and place the fence on the new division line between their tracts. By this description, the southern new tract received one entire field and an unknown portion of the second field. The southern new tract also contained more acreage than the new northern tract. Perhaps this apparent favoring of the southern tract was counterbalanced by the presence of the tavern on the northern tract, since the division was meant to give each set of heirs a portion of equal value.

Nineteenth-century development on the 82-acre parcel was concentrated along the main road, near the tavern at a crossroads which became the heart of the Village of Blackbird. When Isaac and Catharine Cannon sold the 82-acre tract to Benjamin Donoho in 1810, they reserved for themselves one acre of land fronting on the public road, where the Cannons had constructed their new house and garden. When the property was sold by the Donoho family in 1838 to Bassett Ferguson, there are several reservations made in this deed, including the one-acre reservation for the Cannons, a one-acre tract for Martha Donoho, and a five-acre tract for Rebecca Donoho. The five-acre tract was along the main road and had contained the residence of Robert Herridge in 1803; the Cannons' one-acre parcel was adjacent to the five acres. However, the 1838 sale did include the tavern house, the **dwelling houses**, barns, stables and other improvements on the remainder of the property (emphasis added). This implies that more than one residence was standing on the non-reserved portion of the property. Perhaps one of these dwellings had been constructed somewhere removed from the main road; this pattern of separating the main house from a possible tenant house was not uncommon.

The developed portion of the property, including the formerly reserved tracts, became a separate 9-acre parcel in 1858, and was assigned to the widow of Bassett Ferguson. The remainder of the tract became the property of one of Bassett Ferguson's sons, Richard. No buildings were depicted on an 1858 plat of the land which Richard Ferguson acquired. The Ferguson family home was located on another parcel they owned, on the north side of Blackbird Creek, on the opposite side of the creek from the project area parcel. Richard's brother, Colen Ferguson, acquired the parcel with the family home. Richard and Colen were two of twelve children of Bassett Ferguson. The Fergusons reportedly farmed both parcels and owned the project area parcel for 100 years (1838 to 1938).

A dwelling was constructed on the project area parcel during the ownership of Richard Ferguson, between 1868 and 1881. Richard Ferguson's wife died in 1876 (Beneson 1986: 109). It is likely that Ferguson built the house while his wife was still alive, so the construction date was probably between 1868 and 1876. An aerial photograph of the project area taken in 1926 depicts the farmhouse and outbuildings clustered near the end of the driveway. The land to the north, east, and west of the complex was farmland; this land includes the Blackbird Creek Site. South of the buildings complex was the neighboring farm property, containing the Buckson Site (Site 7NC-J-207). The wetlands bordering Blackbird Creek and Sandom Branch were wooded. This same pattern of land use was noted in an aerial photograph taken in 1937 (DeIDOT 1937).

The farmhouse was still extant in the mid-1990s, southeast of the Blackbird Creek Site. Also standing were a barn, poured concrete silo, garage, shed, one-story cinderblock building, and a pole barn (UDCAR 1992 and Berger ca.1997). The farmhouse was designated CRS No. N-13398 and was described in 1995 as a two-and-one-half-story wood frame building with a stone foundation (Parkinson and Gravereaux 1995). The dwelling had a rear addition with a poured concrete foundation, and appeared to have a full basement. The house was found not eligible for listing on the NRHP in 1994 due to compromised integrity, including replacement windows, aluminum siding, and the demolition of related outbuildings. The farm complex has since been demolished.

The 19th-to-20th-century archaeological site identified in the 1990s surrounding the complex of farm buildings became Site 7NC-J-202 (Bedell and Busby 1997: 18). The initial dimensions of Site 7NC-J-202 were 500-x-500 feet (Bedell et al. 1998: 42). The Blackbird Creek Site was initially identified as a prehistoric archaeological site with dimensions of 300-x-500 feet (Bedell et al. 1998: 41). The two sites overlapped at the northern edge of Site 7NC-J-202 and the southeastern edge of Blackbird Creek Site, in the vicinity of the northernmost outbuilding in the farm complex, a pole barn.

Archaeological Investigations

Originally identified and recorded by University of Delaware Center for Archaeological Research (UDCAR), the Blackbird Creek Site was formally documented by Cultural Resource Group of Louis Berger and Associates, Inc. (LBA) in a management summary of the 1992 survey using UDCAR's field notes (Bedell and Busby 1997). Field investigations at the Blackbird Creek Site were conducted in two phases: Phase II site evaluation and Phase III data recovery that focused on the NRHP-eligible prehistoric component. During investigation of the prehistoric occupations, historical artifacts were recovered from 80 STPs (of 193) and 82 test units (of 85). Although the site evaluation testing determined the historical component of the site as not eligible for NRHP inclusion, some conclusions can be made about the historical occupation of the site.

Historical Features

Excavations at the Blackbird Creek Site revealed 48 historical features. Of this number 46 consisted of post features (Table C-2). A typical historical post consists of two parts, the posthole and the post mold. Generally, a hole was excavated, a post placed within the hole, then soils were backfilled, holding the post in place. The initial hole excavated constitutes the posthole. A post mold develops when a post decays leaving an area of organic soils or, when a post was pulled and the void filled with organic topsoils. Many of the posts identified at the site contained both holes and molds. Only three post features (F-50, F-72 and F-81) contained artifacts (n=11), suggesting that the post holes were excavated prior to the activities that generated the artifacts recovered from the site or that the post holes were placed away from artifact-generating activities.

Table C-2. Historical Post Feature Attributes.

Feature	Provenience	Post Holes					Post Molds				
		Shape	Artifacts	Dimensions (inches)			Shape	Artifacts	Dimensions (inches)		
				Max.	Min.	Depth			Max.	Min.	Depth
8	N215 E460	square	--	15.7	14.2	0.4	rectangular	--	4.7	2.4	0.4
15	N191 E465	rectangular	--	16.5	7.9	--	square	--	4.7	3.1	--
19	N136 E390.85	rectangular	--	21.3	6.7	7.1	circular	--	10.6	10.6	7.1
20	N135 E390	rectangular	--	18.1	12.2	7.9	circular	--	6.3	6.3	7.9
34	N214 E455	rectangular	--	15.7	7.1	12.6	--	--	--	--	--
35	N201 E463	rectangular	--	16.9	13.4	17.3	circular	--	5.5	4.3	16.1
37	N198 E473	rectangular	--	18.9	14.2	15.0	circular	--	6.7	6.3	14.2
38	N205 E462	rectangular	--	20.9	13.4	18.1	circular	--	4.7	4.7	10.2
40	N195 E464	rectangular	--	15.7	11.8	11.0	circular	--	4.3	4.3	11.0
41	N166 E463	rectangular	--	14.2	9.8	7.1	circular	--	8.7	2.4	6.3
43	N198 E458	square	--	9.4	9.4	11.0	circular	--	5.9	5.9	11.0
44	N197 E455	square	--	9.1	8.7	10.2	--	--	--	--	--
48	N197 E441	circular	--	7.1	7.1	1.2	--	--	--	--	--
49	N199 E457	rectangular	--	15.0	5.5	5.1	--	--	--	--	--
50	N97 E390	rectangular	1	16.9	13.8	15.7	circular	--	3.9	3.9	15.7
72	N149.79 E378.65	rectangular	3	15.0	12.6	10.2	rectangular	6	10.2	12.6	9.4
76	N187 E467	--	--	--	--	--	oval	--	10.2	9.4	18.5
80	N196.28 E465.13	--	--	--	--	--	circular	--	9.8	7.9	9.8
81	N208.3 E461.8	square	1	20.9	18.9	7.5	--	--	--	--	--
83	N218.5 E459.3	rectangular	--	18.9	15.0	13.4	oval	--	7.1	5.5	12.6
88	N211.7 E439.62	--	--	--	--	--	square	--	7.1	7.1	2.4
89	N210.13 E438.39	oval	--	11.4	9.1	8.3	rectangular	--	7.5	5.5	8.3
93	N209.31 E426.09	square	--	7.1	7.9	7.9	--	--	--	--	--
98	N209 E409-410	--	--	--	--	--	circular	--	6.3	6.3	2.4
102	N198.21 E420.19	--	--	--	--	--	square	--	7.9	7.9	8.7
110	N134 E391-392	rectangular	--	12.6	9.8	2.4	--	--	--	--	--
115	N197.1 E433.62	square	--	7.9	7.9	1.6	--	--	--	--	--
119	N198.42 E440.18	oval	--	11.0	10.2	13.8	--	--	--	--	--

<i>Feature</i>	<i>Provenience</i>	<i>Post Holes</i>					<i>Post Molds</i>				
				<i>Dimensions (inches)</i>					<i>Dimensions (inches)</i>		
		<i>Shape</i>	<i>Artifacts</i>	<i>Max.</i>	<i>Min.</i>	<i>Depth</i>	<i>Shape</i>	<i>Artifacts</i>	<i>Max.</i>	<i>Min.</i>	<i>Depth</i>
120	N212.1 E460.8	rectangular	--	16.5	11.8	10.2	circular	--	9.4	9.4	7.1
124	N167.5 E409.2	circular	--	11.8	11.8	--	--	--	--	--	--
125	N171.51 E410.86	oval	--	11.8	6.7	4.3	--	--	--	--	--
126	N171.2 E411	oval	--	11.8	9.8	--	--	--	--	--	--
127	N166.37 E415.54	rectangular	--	15.0	9.4	5.9	--	--	--	--	--
139	N214 E479	circular	--	9.8	9.4	3.1	oval	--	7.1	6.3	7.1
141	N208.92 456.475	rectangular	--	15.7	11.0	--	--	--	--	--	--
142	N205.91 E456.87	rectangular	--	15.0	9.4	--	--	--	--	--	--
143	N202.95 E457.4	rectangular	--	15.0	13.4	7.9	--	--	--	--	--
146	N211.87 E455.85	rectangular	--	17.7	11.0	--	--	--	--	--	--
149	N204.52 E449	rectangular	--	13.8	9.8	--	--	--	--	--	--
151	N205.34 E440.5	rectangular	--	6.7	6.7	--	--	--	--	--	--
152	N205.08 E432.23	rectangular	--	27.6	10.6	--	--	--	--	--	--
182	N222.11 E456.2	rectangular	--	17.3	10.2	--	--	--	--	--	--
189	N195.35 E459.05	oval	--	12.6	9.8	--	--	--	--	--	--
197	N175.90 E481.10	circular	--	9.8	9.8	--	--	--	--	--	--
199	N193.8 E439.7	circular	--	15.7	15.7	--	--	--	--	--	--
201	N185.2 E467.1	square	--	15.7	15.7	--	--	--	--	--	--

In addition to posts, two linear trench features also were identified. These were interpreted as utility and/or irrigation/drainage trenches related to the adjacent 19th-to-20th-century farmstead (Site 7NC-J-202).

Historical Artifact Assemblage

Archaeological excavations conducted by the CR Division resulted in the recovery of 1,593 historical artifacts. Over one-half of the artifacts recovered (52 percent) were domestic debris including glass and ceramic food containers, food storage or food serving items. Thirty-nine percent of the assemblage was architectural materials consisting of brick, window glass, and hardware (i.e., nails and screws). The rest of the assemblage represented artifacts associated with specific activities such as arms and ammunition (shotgun shell, gunflint); clothing (buttons); personal items such as a Mexican-minted silver Spanish reale piece dated 1810 and tobacco pipe fragments; and unidentified materials of cupreous and ferrous alloy. Table C-3 lists the artifacts recovered by artifact type.

Architectural items constituted a significant portion of the assemblage. Brick and daub (n= 322), nails (n=158), and window glass (n=123) comprise the majority of architectural artifacts and may be indicative of a nearby structure. The ratio of brick, daub, and mortar to nails, roughly 2:1, was inconclusive as to the design of the possible structure, but useful in determining a type of construction. Had a solid brick structure occurred on site, greater quantities of the material would be expected. Therefore, the archaeological evidence suggests either a post-in-ground structure with brick elements (such as chimney), a wooden structure with brick piers, or a brick founded wooden structure. Furthermore, the relatively high frequency of window glass suggests a domestic structure, window glass having historically been an expensive commodity unnecessary for most functional outbuildings such as barns, privies, smokehouses, or storage.

Table C-3. Historical Artifact Frequency by Type.

<i>Group</i>	<i>Artifact</i>	<i>Count</i>
Activities	Flower Pot	5
	Horseshoe	2
Architecture	Brick	331
	Daub	1
	Hand Wrought Nail	7
	Cut Nail	72
	Cut or Wrought Nail	25
	Wire Nail	13
	Unidentified Nail	41
	Mortar	2
	Fence Staple	4
	Window Glass	123
	Wrought Rivet	1
	Porcelain Door Knob	1
	Roofing Slate	1
	Clothing	Cupric Button
Domestic	Chinese Porcelain	8

<i>Group</i>	<i>Artifact</i>	<i>Count</i>
	Hardpaste Porcelain	2
	Bone China	1
	American Stoneware	3
	Albany and/or Bristol Stoneware	5
	White Salt-Glazed Stoneware	1
	Astbury	1
	Creamware	16
	Ironstone	30
	Jackfield / Jackfield-like	26
	Pearlware	103
	Redware	222
	Rockingham/Bennington	2
	Staffordshire Slipware	2
	Tin-Glazed Earthenware	2
	Whiteware	195
	Yellowware	6
	Unidentified Earthenware	13
	Machine-Made Bottle Glass	12
	Mold-Blown Bottle Glass	5
	Unidentified Bottle Glass	128
	Opal Glass Fruit Jar lid liner	1
	Unidentified Vessel Glass	37
	Tin Can Fragments	2
Firearms	Shotgun Shell	2
	Gunflint	1
Heating and Lighting	Electrical Wire	1
	Light Bulb	1
Personal	One Reale Coin – Mexico City Mint, 1810	1
	Pencil Slate	3
	Tobacco Pipe	2
Miscellaneous	Asphalt	1
	Unidentified Copper Alloy	1
	Unidentified Glass	2
	Unidentified Iron	116
	Unidentified Plastic	1
	Unidentified	6
<i>TOTAL</i>		<i>1,593</i>

The recovered domestic artifacts were related to culinary items for food consumption and serving, food preparation, food storage, and food containers. The tableware included recognizable fragments of Chinese porcelain saucer, teacup and hollowware, bone china porcelain hollowware, Astbury teapot, Staffordshire hollowware, white salt-glaze hollowware, creamware plate, Jackfield-style hollowware, ironstone hollowware, pearlware plate and hollowware, Rockingham-Bennington hollowware, and whiteware plate, teacup, and hollowware. Additional fragments of these wares, as well as several sherds of delftware, hard paste porcelain, and yellowware, were also recovered but the functions or vessel shape could not be determined for those artifacts. Food preparation

artifacts consisted of coarse earthenware redware hollowware vessels. Food storage items included fragments of stoneware hollowware, bottle/jug, and pot. The functions for the household vessel glass could not be determined but two possible tumblers were included. Bottle glass comprised the majority of the domestic glass recovered. Identifiable pieces included pharmaceutical, soda, and beer bottles. Domestic food containers present were a glass fruit jar lid liner and a tin can.

Historical ceramic types provide the best temporal markers for historical archaeological sites dating prior to approximately 1860 (Table C-4). Decorative motifs, if identifiable, can be unique to later periods. Several diagnostic historical ceramic types appear in the Blackbird Creek Site assemblage. Historical ceramics also provide evidence of site activity and some indication of the socio-economic status of those responsible for their deposition. Some of the architectural elements, particularly nails, likewise possess diagnostic properties.

The collection of historical ceramics from the Blackbird Creek Site contained several specimens diagnostic to the colonial period. Specifically present were: Staffordshire Slipware, tin-glazed earthenware, white salt-glazed stoneware, and creamware. Staffordshire potters produced utilitarian slipped vessels by the late-17th century and these wares were exported to the colonies until the start of the American Revolution. By the 16th century, potters in northern Europe started producing tin-glazed earthenwares. Accordingly, they appear in the earliest historical sites in the region, persisting until the mid-to-late 18th century. The 18th century saw several improvements in the ceramic making industry. Excavations in England place the initial production of white salt-glazed stoneware to approximately 1700 in Staffordshire, perhaps a decade earlier in Fulham. Noel Hume (1970: 114-115) dates the introduction of white salt-glazed into the Chesapeake to 1715. Like Staffordshire slipwares, importation of white salt-glazed stoneware continued until the American Revolution. Historians and archaeologists attribute the advent of cream-bodied wares to Enoch Booth in 1740. Josiah Wedgwood introduced creamware, a cream bodied paste with clear to greenish glaze in 1762. The introduction of this ware significantly impacted European ceramic production and consumption, being more durable than tin-glazed wares and less expensive than white salt-glazed wares.

Early, colonial period, ceramics constituted a minority within the total ceramic assemblage. In total, 103 examples of pearlware and 195 examples of whiteware were recovered. Several pearlware specimens exhibited decorative techniques. Included in the collection were transfer-printed, hand-painted, and slipped examples. Among the slipped pearlwares, simple annular bands and a mocha slipped ware with either cat's eye or possibly earthworm decoration were identified. Transfer-printing, hand-painting, and annular slips were observed on whiteware samples as well. The two fragments of

Table C-4. Temporally Diagnostic Historical Artifacts by Type.

<i>Artifact</i>	<i>Type</i>	<i>Manufacturer/Origin</i>	<i>Manufacturing Dates</i>	<i>Terminus Post Quem (TPQ)</i>	<i>Reference</i>
Ceramic	Astbury Redware	England	1725-1750	1725	Noel Hume 1969:122-123
Ceramic	Creamware, plain	England	1762-1820s	1762	Noel Hume 1969: 125-128
Ceramic	Ironstone	England, USA	1813-present	1813	Price 1979:11; Noel Hume 1969:131
Ceramic	Jackfield-style redware	England	Ca. 1745-1790	1745	Noel Hume 1969:123
Ceramic	Pearlware, annular	England	1795-1820	1795	Noel Hume 1969:131-132
Ceramic	Pearlware, blue hand painted	England	ca.1770s-1820	1770	Noel Hume 1969; South 1977
Ceramic	Pearlware, blue or green shell-edged	England	ca.1780-1830	1780	Price 1979:10-11; Noel Hume 1969:126-131
Ceramic	Pearlware, plain	England	1770s-1830	1770	Price 1979:10; Noel Hume 1969: 128-129;Seidel 1990:93
Ceramic	Pearlware, transfer printed	England	1795-1830	1795	Miller 1980; South 1977
Ceramic	Rockingham/Bennington	England, USA	ca.1840-1900*	1840	Stelle 2001
Ceramic	Staffordshire Slipware	England	1675-1775	1675	Noel Hume 1969: 134-136; MAC-Lab 2002
Ceramic	Stoneware, American, Albany Slip	USA	1850-1900/present	1850	Noel Hume 1969:101
Ceramic	Stoneware, American Gray	USA	1730-1900s	1730	Noel Hume 1969: 101
Ceramic	Stoneware, White Salt Glazed	England	1720-1805	1720	Noel Hume 1919:115-117
Ceramic	Tin-glazed earthenware (Delftware)	England, Netherlands	1600 – ca.1875	1600	Noël Hume 1969; Shlasko 1989; Austin 1994
Ceramic	Whiteware, annular	England, USA	1830-1900	1830	Price 1979:18; Noel Hume 1969:131
Ceramic	Whiteware, blue transfer printed	England, USA	1820+	1820	Little 1969:17
Ceramic	Whiteware, hand painted	England, USA	1820-1900	1820	Noel Hume 1969
Ceramic	Whiteware, plain	England, USA	1820-present	1820	Noel Hume 1969:130-131
Ceramic	Whiteware, red transfer printed	England, USA	Ca 1820s-1840s and 1870s-1890s*	1820s	Samford 1997:4, 20
Ceramic	Whiteware, sponge decorated	England, USA	Ca. mid-1800s	1830	Ketchum 1983:12
Ceramic	Yellow-glazed refined earthenware	England	1785-1835	1785	Miller 1974
Ceramic	Yellowware	England, USA	1828-1930s+	1828	Ketchum 1983: 12

Archaeological Investigations at the Blackbird Creek Site

<i>Artifact</i>	<i>Type</i>	<i>Manufacturer/Origin</i>	<i>Manufacturing Dates</i>	<i>Terminus Post Quem (TPQ)</i>	<i>Reference</i>
Coin	Reale, Silver	Dominions of Spain (Mexico)	1810	1810	Schilke and Solomon 1964: 175
Glass	Solarized amethyst	USA	Ca. 1880-1915	1880	Kendrick 1971:55; Munsey 1970:55
Glass	White, Mason Jar Lid	USA	Post-1870	1870	Stelle 2001
Glass	Automatic bottle machine	USA	1904-present	1904	Ketz and Reimer 1990:48
Glass	Clear embossed bottle; Pepsi Cola bottle design				
Glass	Solarized amethyst with embossing	R.V. Pierce Buffalo, New York	Ca. 1896	1896	Wilson 1971:70; Fike 1987:177
Glass	Light bulb	USA	Post-1879	1879	Ketz and Reimer 1990:48
Gunflint	Amber	France	1600-1865	1600	Hamilton 1987; Hamilton and Emery 1988
Porcelain	Bone china, hand painted	England	1795- present	1795	South 1977:72
Nail	Wrought	USA	1600-1795	1795	Noel Hume 1969:253; Edwards and Wells 1993:6-16
Nail	Cut	USA	ca. 1795-present	1795	Edwards and Wells 1993
Nail	Wire	USA	ca. 1880-present	1880	Edwards and Wells 1993:16

*peak popularity

Rockingham or Bennington glazed yellowware conform to this range. Rockingham, or Rockingham-Bennington, consists of a yellowware body decorated with a thick brown mottled glaze. This mottling is achieved with the inclusion of manganese and is the distinctive quality of the ware. The first production of this type occurred in Britain during the late-18th century. English potters transported the method to the ceramic producing regions of Pennsylvania, Ohio, Illinois, and, particularly, Bennington, Vermont. Extensive American production began in the 1830s enjoying peak popularity from 1840 to 1900 (Stelle 2001). The relative paucity of late-19th century historical ceramic types, such as the five examples of Albany slipped and/or Bristol glazed stonewares suggested peak site occupation from ca.1800 to ca.1880.

Of equal diagnostic significance to historical ceramics recorded at the site were those absent from the collection. While several examples of potentially colonial-era ceramics were recovered from the site, others were absent. Most notably absent were examples of North Devon wares. Seventeenth and early-to-mid 18th century archaeological sites in the Mid-Atlantic often yield North Devon redwares; by the third quarter of the 18th century sturdier refined earthenwares began to replace this earlier type (Maryland Archaeological Conservation Laboratory [MAC-Lab] 2002). The absence of North Devon and diminutive presence of tin-glazed earthenwares, within the collection indicated an earliest historical presence during the latter part of the 18th century. On the opposite temporal end, neither ivory-tinted, nor over-glaze decal decorated whitewares appeared, reflecting an occupational terminus likely by the third or fourth quarter of the 19th century.

A variety of glass artifacts were recovered from the Blackbird Creek Site. Seventeen bottle glass fragments possessed diagnostic attributes. A machine produced 12 of the diagnostic fragments; the remaining five were blown-in-mold. Given the composition of the entire collection, it is likely that the machine-made specimens constitute later period refuse rather than site related activities. One white opal glass Mason jar lid appeared in the historical assemblage. John Mason patented his jar form in 1858; originally a zinc lid sealed the container (Stelle 2001; McClung Museum 1998). In 1869, Lewis Boyd patented an opal glass seal, which served as "...a useful horizon marker on all mid-19th century farmsteads" (Stelle 2001). Vessel glass (n=37) also contributed to the glass collection. No vessel glass fragments displayed evidence of manufacturing method.

Glass color is generally not a diagnostic attribute with two exceptions (Jones and Sullivan 1989: 12-13). Starting in the 1880's manufacturers added magnesium to glass as a clarifying agent. When exposed to ultra violet light, manganese-tinted bottles change to a slightly purplish color. The practice ended at the start of World War I as Germany was the primary manganese supplier. The Blackbird Creek Site yielded four manganese-tinted bottle glass fragments and two vessel glass fragments. One manganese-tinted bottle glass fragment exhibited evidence of mold-blown production. The Owens fully automated bottle-making machine, patented in 1903 by Michael Owens, revolutionized the industry, quickly replacing blown-in-mold technology. The addition of manganese combined with the technological process provides a ca.1880 to 1903 context

for this artifact. Like the Albany/Bristol stonewares, the relatively small number of manganese-tinted samples indicates the greatest site occupation prior to the advent of manganese as a clarifying agent. As an additive, selenium replaced manganese around 1915. Selenium gives glass a slightly yellowish tint that is often extremely faint and only visible in cross-section. No examples of selenium-tinted glass were noted at the site. Its absence further suggests site abandonment prior to the 20th century.

Artifact analysis identified 622 architectural artifacts. This category included brick, mortar, nails, window glass, architectural slate, and a porcelain doorknob. Within the assemblage of architectural remains, only nails are temporally diagnostic. In total, 158 nails were recovered. Of this number, 72 were machine cut, seven were hand wrought, and 13 were wire; 25 nails were square shanked but of indeterminate manufacture and 41 were unidentifiable. Like the ceramic assemblage, nail analysis suggests occupation primarily throughout the 19th century with the possibility of earlier occupation. Non-diagnostic architectural artifacts include: 331 brick fragments, one daub fragment, two mortar fragments, 123 window glass fragments, one piece of roofing slate, and one porcelain door knob. The presence of these architectural elements indicates proximity to non-extant structure. The decorative and fragile, rather than purely functional, nature of the porcelain doorknob and the amount of domestic materials may suggest a domicile.

Two white clay tobacco pipe fragments appeared in the assemblage; both were undecorated. A gunflint fragment was also recovered. The amber color of the flint suggests French origin. Flintlock weapons were developed in Europe by the early-17th century. Percussion cap detonation, the next significant advancement firearms technology, derived from a percussion ignition method invented by Scottish Reverend Alexander Forsyth's in the early-19th century. Although percussion caps represented an important technology, their replacement of flintlock weapons was neither immediate nor complete; some Civil War soldiers carried flintlock rifles.

Three copper alloy buttons were recovered from the site. One was a plain, 0.56" diameter flat brass waistcoat button with a broken "alpha"-shaped brass wire shank. The second was also a flat brass waistcoat button, but measured 0.57" diameter and was stamped "* WARRANTED * EXTRA" on the back (Figure C-13). This button had an intact "alpha"-shaped brass wire shank. The two buttons were of a form manufactured in the late 18th to early 19th century (Hinks 1988). A third copper alloy button, likely a cuff button, was a slightly convex oval shape with a simple curvilinear decoration and damaged shank and may have been from the same period or later.

A silver, one-reale coin constitutes one of the most interesting artifacts recovered (Figure C-14). It is marked "*FERDIN VII DEI GRATIA 1810*" with the right profile of Ferdinand VII on the obverse and "*HISPAN ET IND REX M 1R T H*" and the crowned Spanish arms between the Pillars of Hercules on the reverse. This 20mm diameter coin was minted in 1810. A Mexico City mint produced the coin as evidenced by the "M" mark topped with a circle. The worn nature of the portrait on the obverse indicated that the coin was probably in use for a number of years before it was deposited.



Figure C-13. Flat Brass Waistcoat Button, Stamped Back.



Figure C-14. Silver Spanish Reale Coin Dated 1810.

Historical Artifact Distribution

The CR Division investigated the horizontal and vertical distribution of artifacts. Vertical distribution reflects site integrity while horizontal distribution indicates site activity areas.

Vertical Distribution. The vast majority of historical artifacts recovered from the Blackbird Creek Site occurred in Stratum A, the uppermost horizon representing the

plow zone (Table C-5). Of the 1,593 historical artifacts recovered, only 25 were recovered from Stratum B (subsoil). These few artifacts included whiteware and redware fragments, one fragment each of pearlware and creamware, mold-blown bottle glass, brick, and cut nails. Temporally, these artifacts do not differ from the materials recovered from the plow zone. The relatively minor occurrence of artifacts recovered beneath the plow zone context suggests these historical materials were intrusive, likely having been transported by plowing or bioturbation.

Table C-5. Historical Artifact Distribution by Stratum.

<i>Stratum</i>	<i>Count</i>
A	1,541
B	25
Feature	27
Total	1,593

Horizontal Distribution. Shovel test results provided initial information about the distribution of historical materials across the Blackbird Creek Site (Figure C-15). The distribution of all historical artifacts recovered from STPs indicates a general scattering across the site. Some clustering occurs near the eastern boundary of the site, approximately 160-to-230 feet south of the slope towards Blackbird Creek and again near the southwest corner. Additional, minor concentrations were observed along the river-bank, prior to the slope and near the core of the site.

Historical posts exhibited a regular distribution pattern. Specifically, a series of 16 square or rectangular posts formed two parallel lines trending north to south. This pattern suggests several possibilities. First, it is possible that the posts constitute a single fenceline that shifted slightly during a repair or replacement episode. The second possibility is that the posts delineated a pathway leading from a domestic or agricultural structure to Blackbird Creek. The post pattern could also indicate a single, split rail fenceline with anchor posts placed at the ends.

Figure C-15 also illustrates the location of posts with square or rectangular versus round or oval postholes. Round postholes constituted the majority and are assumed to be non-structural. Square postholes could represent either structural supports, or end posts in a fenceline to support a gate or fence. Two posts along the fenceline were square, however their placement was not continuous, but rather interrupted by other, round posts.

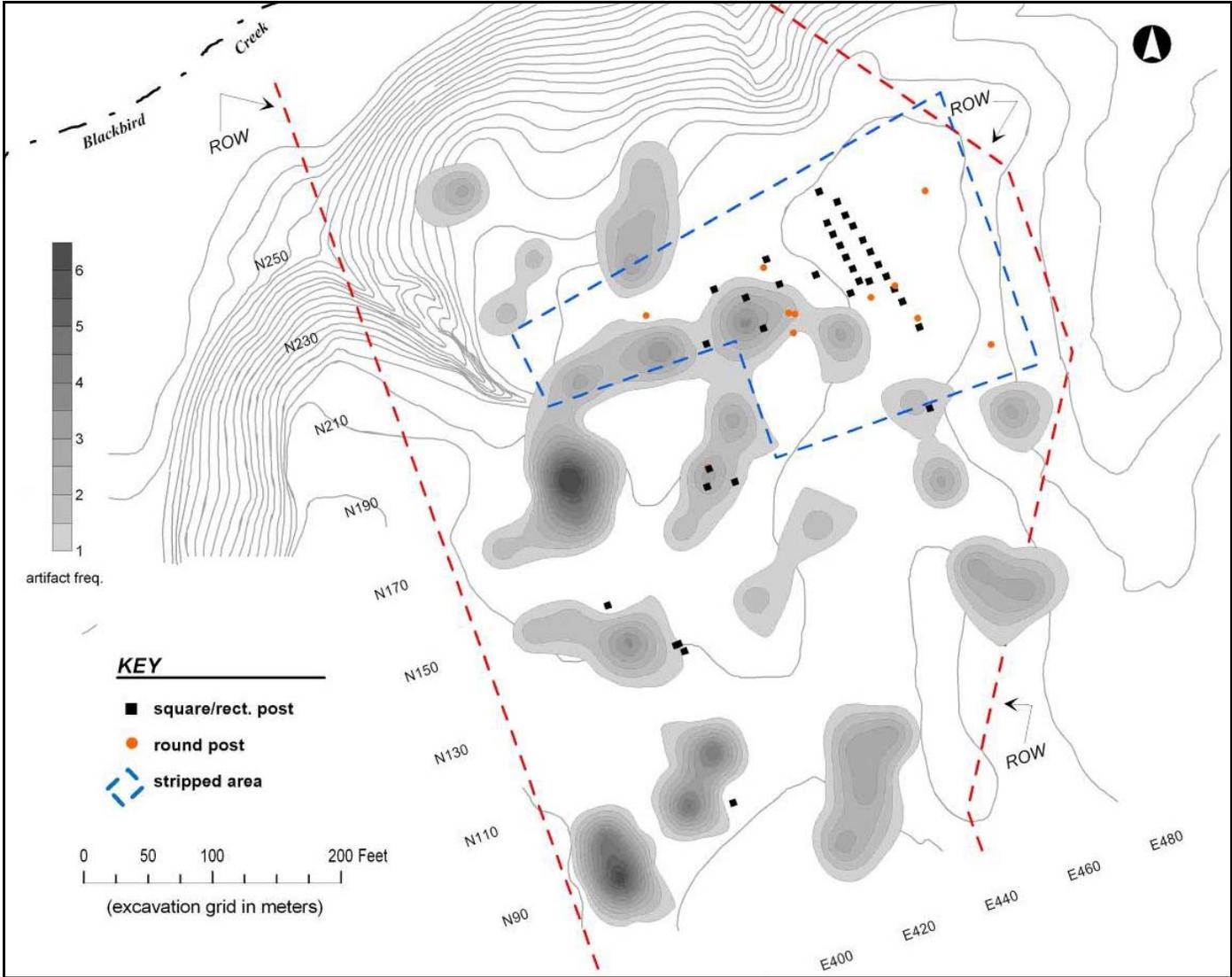


Figure C-15. Horizontal Distribution of Historical Post Features and of Historical Artifacts within Shovel Tests.

Accordingly, it is unlikely they these two constitute a gate, but rather opportunistic use of square posts along the fenceline.

Three square posts were identified in the western portion of the site and one isolated square post is located toward the southwest corner. It is possible that these posts are structural elements of agricultural outbuildings. Artifact data do not provide any definitive answers regarding these posts. Artifact distributions for the Phase II STPs indicate an absence of materials in the vicinity near the parallel post lines. Artifact clusters do appear near the locations of the other posts. The peripheral distribution of historical artifacts relative to the square posts not associated with the fenceline could reflect an architectural footprint.

Site Summary

In summary, the land containing the Blackbird Creek Site was part of a farm that was cultivated beginning in the mid-to-late 18th century and continued to be farmed into the 1990s. A farmhouse and farm outbuildings were added to the parcel, southeast of the site, in the third quarter of the 19th century, and remained in use until the late-20th century. No evidence has been found of historical structural remains within the boundaries of the Blackbird Creek Site. The artifact analysis suggests that peak occupation likely occurred between ca. 1800 to 1880 and ended prior to the 20th century. Therefore, the artifacts seem to be earlier than the nearby house whose construction post-dates 1868 and pre-dates 1881. Perhaps some or most of the artifacts could be from buildings being removed or renovated along the main road, in what later became the separate 9-acre parcel. The old hotel was abandoned in 1841 and converted into a residence. A new hotel was built in 1841, according to Scharf's local history. Perhaps the debris was dumped to the rear of the property as was the common practice on farms. Wooded areas and ravines where the debris would be hidden are favored spots for deposition. Residents of Blackbird Village along the main road, with the hotel and the dense clusters of houses on small tracts (one to five acres), would have valued their limited yard space and probably not have kept debris in view of the road or of hotel guests.

REFERENCES CITED

Army Air Corps

1926 Aerial photograph of the Blackbird, Delaware area. Photograph no. 178.

Artusy, R.E.

1976 An Overview of the Proposed Ceramic Sequence in Southern Delaware. *Archeolog* 27(1):1-9.

Atkinson, Wilmer, Co.

1914 *The Farm Journal Farm and Business Directory of New Castle County, DE*. Wilmer Atkinson Company, Philadelphia.

Austin, John C

1994 *British Delft at Williamsburg*. The Colonial Williamsburg Foundation, Williamsburg, Virginia.

Baist, G. William

1893 *Atlas of the State of Delaware*. G. William Baist, Philadelphia. Available on microfiche at the Delaware Public Archives, Dover.

Bedell, John C.

1996a *Management Report: Phase II Archaeological Testing of Prehistoric Sites 7NC-J-219, 7NC-J-50, and 7NC-H-91 in the Lunch Wetland Replacement Area, New Castle County, Delaware*. Prepared for the Delaware Department of Transportation, Dover, by Louis Berger & Associates, Inc., Washington, D.C.

1996b *Management Report: Phase I Archaeological Survey of the DiGiovanni Construction Staging Area, New Castle County, Delaware*. Prepared for the Delaware Department of Transportation, Dover, by Louis Berger & Associates, Inc., Washington, D.C.

1996c *Management Report: Phase II Archaeological Testing of 7NC-J-220, the Knotts Site*. Prepared for the Delaware Department of Transportation, Dover, by Louis Berger & Associates, Inc., Washington, D.C.

1997 *Management Report: Phase III Archaeological Excavation of 7NC-G-145, the Augustine Creek South Site, New Castle County, Delaware*. Prepared for the Delaware Department of Transportation, Dover, by Louis Berger & Associates, Inc., Washington, D.C.

Bedell, John C. and Virginia Busby

1997 *Management Report: Phase I Archaeological Survey of the SR 1 Corridor, Smyrna to Pine Tree Corners, New Castle County, Delaware*. Prepared for the

Delaware Department of Transportation by Louis Berger & Associates, Inc.,
Washington, DC.

Bedell, John C. and Robert Jacoby

1998 *Management Report: Additional Phase I Archaeological Survey in the SR 1 Corridor, Smyrna to Pine Tree Corners, New Castle County, Delaware.* Prepared for the Delaware Department of Transportation by Louis Berger & Associates, Inc., Washington, DC.

Bedell, John, Charles H. LeeDecker, John T. Eddins, Ingrid Wuebber, Robert Jacoby and Earl Proper.

1997a *Phase I and II Archaeological Studies in the Proposed SR 1 Corridor, Scott Run to Pine Tree Corners, New Castle County, Delaware.* Prepared for the Delaware Department of Transportation by Louis Berger & Associates, Inc., Washington, DC.

Bedell, John C., Ingrid Wuebber, Justine McKnight and Rick Vernay

1997b *Phase I/II Archaeological Investigations at the John Henry Site, 7NC-J-223, SR 1 Corridor, Pine Tree Corners, New Castle County, Delaware.* Prepared for the Delaware Department of Transportation by Louis Berger & Associates, Inc., Washington, DC.

Beers, D.G.

1868 *Atlas of the State of Delaware.* Pomeroy & Beers, Philadelphia. Reprinted by Sussex Countian, Inc., Georgetown, DE.

Benenson, Carol A.

1986 National Register of Historic Places Inventory-Nomination Form for Blackbird Village Historic District. Prepared by KKFS, Inc., Philadelphia, PA.

Berger, Louis, & Associates

c.1997 Field maps from archaeological survey of State Route 1 corridor, Smyrna to Pine Tree Corners.

Binford, Lewis R.

1981 Behavioral Archaeology and the "Pompeii Premise." *Journal of Anthropological Research* 37(3):195-208.

1982 The Archaeology of Place. *Journal of Anthropological Archaeology*, Vol. 1 (1): 5-31.

Booth, James C.

1841 Memoir of the Geological Survey of the State of Delaware, Including the Application of the Geological Observations to Agriculture. S. Kimmey, Dover, DE. Reprinted in 1976 by Delaware Geological Survey, Special Publication 8, Newark, DE.

Catts, Wade P., Todd Sandstrom, and Jay F. Custer

1995 Phase I and II Archaeological Testing at the Lisbon Tract, Dover Air Force Base, State Route 1 Corridor, Kent County, Delaware. Delaware Department of Transportation Archaeology Series No. 133.

Conrad, Henry C.

1908 *History of the State of Delaware from the Earliest Settlements to the Year 1907*.
Published by the author, Wilmington, DE.

Custer, J.F.

1986 *A Management Plan for Delaware's Prehistoric Cultural Resources*. University of Delaware Center for Archaeological Research Monograph No. 2.

1989 *Prehistoric Cultures of the Delmarva Peninsula: An Archaeological Study*.
University of Delaware Press, Newark.

1994 *Stability, Storage, and Culture Change in Prehistoric Delaware: The Woodland I Period (3000 B.C.—A.D. 1000)*. Delaware State Historic Preservation Office, Division of Historical and Cultural Affairs, Dover.

Custer, Jay F., and David C. Bachman

1986 *An Archaeological Planning Survey of Selected Portions of the Proposed Route 13 Relief Route, New Castle County, Delaware*. DelDOT Archaeology Series No. 44. Delaware Department of Transportation, Dover, Delaware.

Custer, J.F., S. C. Watson and C.A. DeSantis

1986 *Archaeological Investigations of the Churchman's Marsh Area*. University of Delaware Center for Archaeological Research Monograph 5. Newark, Delaware.

Custer, Jay F., David C. Bachman and David J. Grettler

1987 *Phase I/II Archaeological Research Plan, U.S. Route 13 Relief Route, Kent and New Castle Counties, Delaware*. DelDOT Archaeology Series No. 54, Delaware Department of Transportation, Dover, Delaware.

De Cunzo, Lu Ann and Wade P. Catts

1990 *Management Plan for Delaware's Historical Archaeological Resources*. Prepared for the Delaware Department of State, Division of Historical and Cultural Affairs, Dover, by the University of Delaware Center for Archaeological Research, Newark.

De Cunzo, Lu Ann and Ann Marie Garcia

1992 *Historic Context: The Archaeology of Agriculture and Rural Life, New Castle and Kent Counties, Delaware, 1830-1940*. Prepared for Delaware Department of

State, Division of Historical and Cultural Affairs, State Historic Preservation Office by the University of Delaware Center for Archaeological Research.

Delaware Department of Transportation (DelDOT)

1937 Aerial photograph of the Blackbird, Delaware area. Photograph no. AHQ-31-11.

Delaware State Historic Preservation Office

1993 *Guidelines for Architectural and Archaeological Surveys in Delaware*. Delaware State Historic Preservation Office, Dover.

Demars, Kenneth R., and Rowland Richards, Jr.

1980 *Mill on the Christina – A Historic Engineering Study of the Dayett Mill Complex*. Prepared by the State of Delaware Division of Historical and Cultural Affairs and the University of Delaware Department of Civil Engineering.

Doherty, Thomas P.

1997 *Delaware Genealogical Research Guide*. Delaware Genealogical Society, Dover, DE.

Donoho, Benjamin

1811 New Castle County Probate Records, RG 2545, on microfilm reel 118. On file at the Dover Public Archives, Dover, DE.

Edwards, Jay D., and Tom Wells

1993 *Historic Louisiana Nails: Aids to the Dating of Old Buildings*. Geoscience Publications. Department of Geology and Anthropology, Louisiana State University. Baton Rouge, Louisiana.

Evans, Lewis

1749 *A map of Pensilvania, New-Jersey, New-York, and the three Delaware counties*. Philadelphia.

Gaston, Mary Frank

1996 *Blue Willow: An Identification and Value Guide*. Revised Second Edition. Collector Books, Paducah, Kentucky.

Gray, Frank Arnold

1876 *New railroad map of the state of Maryland, Delaware, and the District of Columbia*. Compiled and drawn by Frank Arnold Gray. Philadelphia.

Hancock, Harold B.

1987 *Delaware Two Hundred Years Ago: 1780-1800*. A Delaware Heritage Commission book. The Middle Atlantic Press, Wilmington, DE.

Harbeson, Raymond M. Jr.

1992 *Cultural Resource Survey of U.S. Route 113, Milford-Georgetown, Sussex County, Delaware*. DelDOT Archaeology Series No. 99. Prepared for the Delaware Department of Transportation by the Division of Highways.

Heald, Henry

1820 *Roads of Newcastle County*. Surveyed and Printed by Henry Heald. Copy of map on file at the Delaware State Historic Preservation Office, Dover, DE.

Heite, Edward F.

1974 The Delmarva Bog Iron Industry. In *Early American Iron Making, Northeast Historical Archaeology*, Fall 1974.

Heite, Louise B., and Edward F. Heite

1985 *Fork Branch/Dupont Station Community: Archaeological Investigations on Denney's Road, Dover, Kent County, Delaware*. DelDOT Archaeology Series No. 37. Prepared for the Delaware Department of Transportation by the Division of Highways.

Herman, Bernard L., Rebecca J. Siders, David L. Ames, and Mary Helen Callahan

1989 *Historic Context Master Reference and Summary*. Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy, University of Delaware, Newark, Delaware.

Hinks, Stephen

1988 A Structural and Functional Analysis of 18th Century Buttons. Unpublished Master's thesis, Department of Anthropology, The College of William and Mary, Williamsburg.

Hopkins, G.M.

1881 *Map of New Castle County, Delaware, From Actual Surveys and Records*. G.M. Hopkins, & Company, Philadelphia, Pennsylvania. Available at the Geography & Map Division of the Library of Congress, Washington, DC.

Ketchum, William C., Jr.

1983 *Pottery and Porcelain: The Knopf Collectors' Guides to American Antiques*. Alfred A. Knopf, NY.

1987 *Potters and Potteries of New York State, 1650-1900*. Second edition. Syracuse University Press, Syracuse, New York.

Ketz, K. Anne and Theresa Reimer

1990 *Breweries and Bottling Companies in the Washington Area*. Engineering Science, Inc., Washington, D.C.

Kroll, E.M. and T.D. Price (editors)

1991 *The Interpretation of Archaeological Spatial Patterning*. Plenum Press, New York.

Kushela, Keith

n.d. *The History and Buildings of Odessa*. Paper written for the University of Delaware, Newark, Delaware.

LeeDecker, Charles H., Brad Koldehoff, Cheryl Holt, Daniel P. Wagner, Grace S. Brush, and Margaret Newman

1996 *Phase I Archaeological Survey of the SR 1 Corridor on the Osborne Property, New Castle County, Delaware*. Letter report submitted to the Delaware Department of Transportation, Dover, Delaware by Louis Berger & Associates, Inc., Washington, D.C.

Little, W.L.

1969 *Staffordshire Blue: Underglaze Blue Transfer Printed Earthenware*. Crown Publishers, NY.

Long, John H.

1996 *Atlas of Historical County Boundaries*. Charles Scribner's Son, New York.

Maryland Archaeological Conservation Laboratory (MAC-Lab)

2002 *Diagnostic Artifacts in Maryland*. Jefferson Patterson Park and Museum. Maryland Department of Housing and Community Development. St. Leonard Maryland. Electronic document http://www.jefpat.org/diagnostic/Site_Map.htm Accessed March 18, 2003.

Manson, C.

1948 Marcey Creek Site: An Early Manifestation in the Potomac Valley. *American Antiquity* 13: 223-227.

Matthews, Earle D. and Oscar L. Lavoie

1970 *Soil Survey of New Castle County, Delaware*. Soil Conservation Service, United States Department of Agriculture, Washington, D.C.

Miller, J. Jefferson II

1974 *English Yellow-Glazed Earthenware*. Smithsonian Institution Press. Washington, D.C.

Munroe, John A.

1954 *Federalist Delaware 1775-1815*. Rutgers University Press, New Brunswick, New Jersey.

1986 Pierre Charles Varle and his Map of Delaware. In *Delaware History* 22(1):22-38.

National Park Service

1991 *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. U.S. Department of Interior, Interagency Resources Division, Washington, D.C.

New Castle County Deed Books (NCCDB)

On file: Wilmington, Delaware and the Dover Public Archives, Dover, DE.

1749 Deed from Edward Fitzrandolph and wife (w.) to John Chapple. Deed Book Q, Volume 1, Page 278 (Book Q-1: 278).

1758 Deed from John Chapple and w. to Thomas Murphy. Book S-1: 478.

1810 Deed from Isaac Cannon & w. to Benjamin Donoho. Book X-3: 570.

1838 Deed from Henry R. Donoho to Bassett Ferguson. Book C-5: 45.

1898 Deed from Richard Ferguson's estate to Thomas Ferguson. Book S-17: 53.

1899 Deed from Thomas Ferguson to Colen Ferguson. Book Y-17: 203.

1938 Deed from Martha Phillips and husband (h.) to Alvin J. Davis. Book X-40: 378.

1943 Deed from Alvin Davis and w. to Charles W. Cullen. Book Z-43: 104.

1944 Deed from Charles W. Cullen to John A. Hutchinson and w. Book K-44: 256.

1951 Deed from John A. Hutchinson and w. to Casimir Boc and w. Book C-51: 60.

1952 Deed from Casimir Boc and w. to Charles W. Good and w. Book K-52: 14.

1966 Deed from Elsie Good to Russell Kayfield and w. Book E-77: 574.

1967 Deed from Russell Kayfield and w. to Donald E. Anthony and w. Book O-79: 574.

1976 Deed from Donald E. Anthony and w. to Earl Leasure and w. Book D-93: 231.

1992 Deed from Earl Leasure and w. to State of Delaware. Book 1414: 189.

New Castle County Orphans Court Records

On file at the Dover Public Archives, Dover, DE.

1802/3 James Murphy Case Files. Record Group 2840.

1858 Bassett Ferguson Case Files. Record Group 2840.

New Castle County Probate Records

Copies on file at the Dover Public Archives, Dover, DE.

1811 Will of Benjamin Donoho. Written April 1811.

1917 Will of Colen Ferguson. Record Group 2545, Microfilm Reel 144.

New Castle County Warrants and Surveys

On file at the Dover Public Archives, Dover, DE.

1737a Folder F-1 #1. In Record Group 2555, Microfilm Reel 3.

1737b Folder F-2 #33. In Record Group 2555, Microfilm Reel 3.

New Castle County Will Books (NCCWB)

On file at the Dover Public Archives, Dover, DE.

1772 Will of Thomas Murphy. Written June 1767. Book K, Volume 1, Page 37 (Book K-1: 37).

1811 Will of Benjamin Donoho. Written April 1811. Book Q-1: 442.

1917 Will of Colen Ferguson. Written July 1917. Book G-4: 319.

Noel Hume, I.

1969 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York.

O'Connor, Jim, Kevin W. Cunningham, Ellis C. Coleman, and Thomas W. Brockenbrough, Jr.

1985 *Archaeological, Historical and Architectural Evaluation of the Cantrell Warehouse/Enterprise Mill, State Site 7S-E-37, Stein Highway, Seaford, Sussex County, Delaware*. DelDOT Archaeological Series 33.

Parkinson, James and Kelly Gravereaux

1995 Delaware Cultural Resource Survey Forms for CRS no. N-13398, "R. Ferguson" House. Prepared by Kise, Franks, & Straw, Philadelphia, PA.

Passmore, Joanne O.

1978 *Three Centuries of Delaware Agriculture*. Published by the Delaware State Grange and the Delaware American Revolution Bicentennial Commission.

Pippin, Kathryn A.

1995 *Families in Transition: A Smyrna History*. Privately published.

Price, Cynthia R.

1979 *Nineteenth Century Ceramics in the Eastern Ozark Border Region*. Monograph Series No. 1, Center for Archaeological Research, Southwest Missouri State University, Springfield.

Pryor, Clifford

1975 *The Forest of Appoquinimink*. Privately published by the author.

Rea, Samuel and Jacob Price

1849 *A Map of New Castle County, Delaware*. Smith and Wistar, Philadelphia.
Available on microfiche at the Delaware Public Archives, Dover.

Russ, William A.

1966 *How Pennsylvania Acquired Its Present Boundaries*. Pennsylvania History Studies No. 8, The Pennsylvania Historical Association, University Park, Pennsylvania.

Samford, Patricia M.

1997 "Response to a Market: Dating English Underglaze Transfer-Printed Wares". *Historical Archaeology*, 31(2), 1-30.

Scharf, J. Thomas

1888 *History of Delaware 1609-1888*, Vol. II. L.J. Richards and Co., Philadelphia, PA.

Schoenherr, Steve

1999 Record Speeds. Last revised December 3, 1999.
<http://history.acusd.edu/gen/recording/speeds.html>. (November 20, 2002)

2002 Recording Technology History. Notes Revised October 30, 2002.
<http://history.acusd.edu/gen/recording/notes.html>. (November 20, 2002).

Schwartz, Sally

1974 *Cantwell's Bridge, Delaware, 1770-1860*. Thesis submitted for Bachelor of Arts degree with Distinction in History, University of Delaware, Newark, Delaware, May 1974.

1980 Cantwell's Bridge, Delaware: A Demographic and Community Study. In *Delaware History* 19(1):20-38.

Shaffer, Mark, Jay F. Custer, David Grettler, Scott C. Watson, and Colleen De Santis

1988 *Final Phase III Investigations of the Whitten Road Site 7NC-D-100, Whitten or Walther Road, County Road 346, New Castle County, Delaware*. Delaware Department of Transportation Archaeology Series No. 68, Dover.

Seidel, John

1990 "China Glaze" Wares on Sites from the American Revolution: Pearlware Before Wedgwood? *Historical Archaeology* 24(1):82-95.

Shlasko, Ellen

1989 *Delftware Chronology: A New Approach to Dating English Tin-Glazed Ceramics*. M.A. thesis, Department of Anthropology, the College of William and Mary. Williamsburg, VA.

Stelle, Lenville J.

2001 "An Archaeological Guide to Historic Artifacts of the Upper Sangamon Basin". Center for Social Research, Parkland College. Champaign, Illinois. <http://virtual.parkland.cc.il.us/lstelle1/len/archguide/documents/arcguide.htm>. (January 21, 2003). <http://virtual.parkland.cc.il.us/lstelle1/len/archguide/documents/arcguide.htm>

Talbott, J.T.

1866 *Delaware State Directory 1865-1866*. Published by J.T. Talbott, Philadelphia, Pennsylvania.

Turnbaugh, Sarah P.

1985 Introduction. In *Domestic Pottery of the Northeastern United States, 1625-1850*, edited by Sarah P. Turnbaugh, pp. 1-26. Academic Press, New York.

United States Geological Survey (USGS)

1931 Smyrna, Del-NJ quadrangle topographic map. Scale: 1/62,500.

University of Delaware Center for Archaeological Research (UDCAR)

1992 Field maps from archaeological survey of State Route 1 corridor, Smyrna to Pine Tree Corners.

Unknown

1989 *A Century of Population Growth from the First Census of the United States to the Twelfth 1790-1900*. Genealogical Publishing Company, Baltimore, Maryland. Reprint of the 1909 version by the Washington Government Printing Office, Washington, DC.

Welsh, Peter C.

1973 Merchants, Millers and Ocean Ships: The Components of an Early American Industrial Town. In Chapter V: Economic Growth in the Early Republic of *Readings in Delaware History* edited by Carol E. Hoffecker. University of Delaware Press, Newark, Delaware.

Zippe, Edwin S.

1968 *Blackbird Hundred 1875-1967*. Thesis submitted to the University of Delaware for a Master of Arts degree in History, June 1968.