

Section 5: 2002 Monmouth University Archaeological Field Results

5.1 Introduction

In 2002, at the request of Father Robert Counselman, former Rector of Trinity Church, an archaeological survey was performed of the east and north yards of the Dunham/Barron house property. The goal of that investigation was to determine if 17th-century archaeological deposits, contemporary with the assumed Jonathan Dunham occupation of the site were present. Fieldwork was carried out over a period of roughly six months by students and faculty from Monmouth University, under the direction of Dr. Richard Veit. Fieldwork consisted of laying out 36 shovel test pits on a close interval ten-foot grid. Twenty-eight of the STPs on the grid were excavated as were five three-foot square excavation units. A total of 1,147 artifacts were recovered, washed, processed, and cataloged. Of these, 465 came from shovel tests. No features numbers were assigned in the field. However, STPs 2, 3, and 13 encountered a layer of cobbles, roughly one foot below the ground surface, which may represent a historic ground surface or paved pathway and rich midden deposits were noted in Excavation Units 4 and 5 to the north of the house.

Reanalysis of this material in 2020 was complicated by several factors. The assemblage had been lent to a student for a thesis project that did not come to fruition. Some notes were subsequently misplaced complicating analysis. Moreover, inconsistencies in the original note taking, most notably the use of feet and inches for the excavation units, a not uncommon practice at the time of excavation, complicates comparison of the 2002 and the 2019 assemblages.

5.2 Shovel Test Pit Results

Shovel test pits were excavated on March 29 and April 4, 2002 in the west and north yards of the Dunham House site (Figure 5.1). They were confined to an area running fifty feet west of the west wall of the Dunham house. The southwestern corner of the house was used as an informal field datum. Twenty-seven of the tests were located to the west of the house, while a line of four tests was laid out twelve feet north of the house. These four tests were discontinuous from the rest of the shovel test grid and count down from east to west from STP 23 which is located in line with and seventeen feet north of the northeast corner of the house.

Not all of the shovel test pits were excavated. STPs 6 and 7 were skipped due to the presence of an oil tank. Shovel test pit 11 was skipped due to a stone slab on the ground surface. Shovel test pits 2, 3, and 13 encountered a layer of cobbles, roughly one foot below the ground surface, which may represent a historic ground surface or paved pathway. Shovel test pits 15, 18, 19, 27, 28, and 29 were laid out but not excavated due to time constraints, resulting in 28 STPs being excavated. Stratigraphy in the Monmouth University STPs was variable. Typically, an O/A horizon, extending from .4 to 1.1 feet was noted, consisting of a dark brown or dark reddish-brown silty loam. It was underlain by either a B horizon, consisting of a reddish-brown clayey loam, that was excavated to between 1.5 and 2.0 feet below ground surface. Artifact densities were variable and ranged

from 2 artifacts present to 75 in a single STP (Table 5.1). In several instances the A horizon was underlain by historic fill deposits, most notably tests 17, 20, 23, 24, 31, 32, 33, 34, 60, 35, and 23. While frequency plots were not developed, STPs 22, 23, 24, 32, 34, 35, and 36 were all noteworthy for containing very large quantities of artifacts. Shovel test pit 23 encountered what may be an in-filled cellar or other 18th-century feature. It contained large fragments of a gray salt glazed stoneware jug, decorated with a watch spring motif, and the neck and finish of a mid-late-18th-century dark green glass bottle (Figure 5.2).

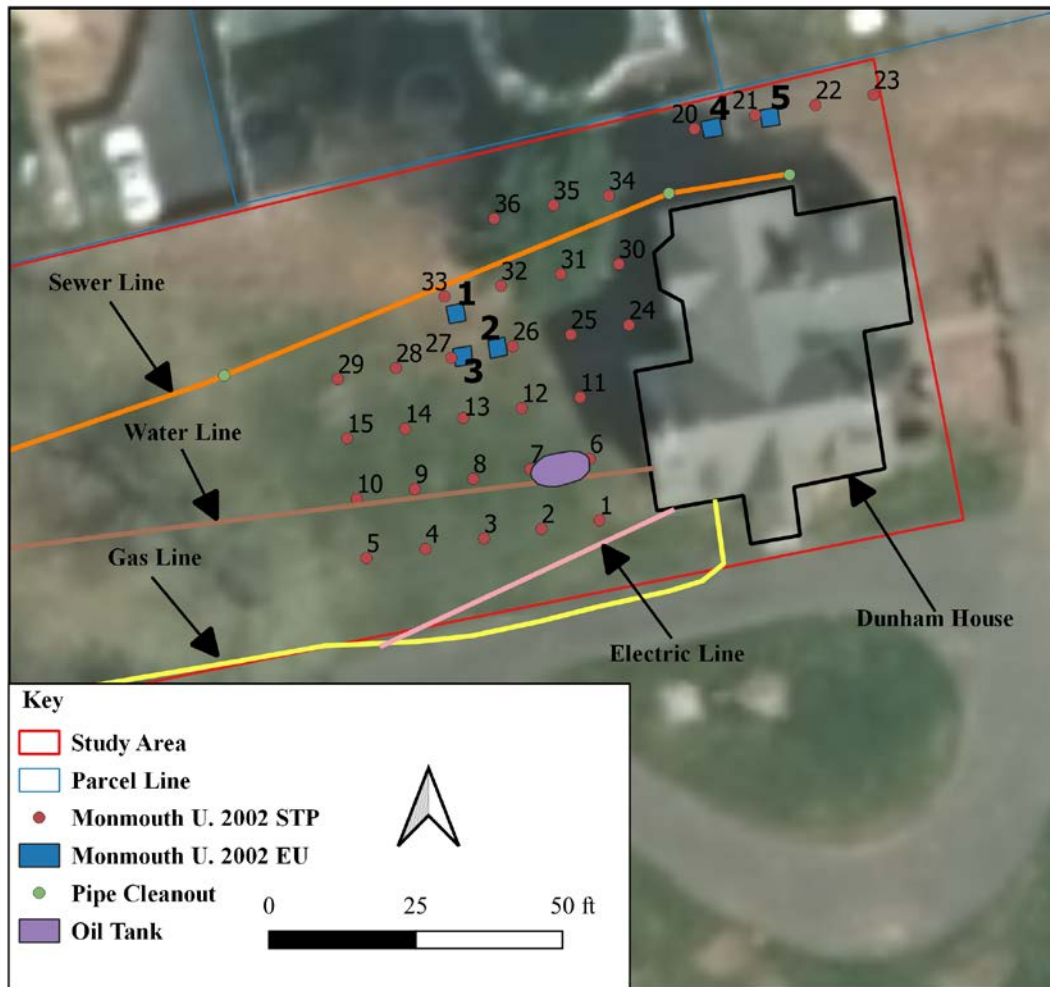


Figure 5.1: Map showing shovel test pit and excavation locations from Monmouth University's 2002 investigation.

Table 5.1: STP Soil Stratigraphy, Artifact Density, and Cultural Deposit Periods

STP #	Stratum	Depth bgs*	Artifact #	Artifact Date Range/Comments
1	A	0-1.5'	4	19 th Century
2	A	0-1.5'	10	18 th -19 th Century
3	A	0-.8'	3	19 th century
3	Fill	.95-2.4'	5	19 th century
5	A	0-2.0'	2	Unknown
8	A	0-2.0'	2	19 th century
12	Fill	.4-2.1'	2	18 th or 19 th century
14	A	0-.7'	4	18 th -century
16	A	0-1.5'	5	18 th or 19 th century
17	A	0-.5'	5	19 th century
17	B	1.5-1.9'	9	18 th or 19 th century
20	A	0-.7'	9	19 th century
20	B	.7-1.7'	9	19 th century
22	A	0-1.1'	8	18 th -20 th century
22	Fill 1	1.1-2.1'	29	18 th century
22	B	2.1-2.6'	4	Unknown
23	A	0-1.5'	25	18 th -20 th century
24	A	0-.4'	26	18 th century
24	Fill 1	.66-1.66'	30	18 th and 19 th century
26	A/B	0-2.25'	1	18 th or 19 th century
30		0-1.0'	17	18 th and 19 th century
30	Fill 1	1.0-2.0'	13	18 th and 19 th century
31	A	0-1.08'	30	18 th century
32	Fill 1	.92-2.66'	76	18 th century
33	A	0-0.5'	8	18 th century
33	B	.83-2.0'	4	Unknown
34	A	0-.75'	30	18 th or 19 th century
34	Fill 1	.75-1.08'	21	18 th and 19 th century
34	Fill 2	1.08-1.5'	9	18 th century
35	A	0-1.2'	15	18 th and 19 th century
36	Fill 1	05-1.8'	22	19 th century

*bgs- decimalized feet below ground surface



Figure 5.2: Select artifacts from STP 32, Level II, including fragments of a locally-produced gray-salt-glazed stoneware crock, a gray salt glazed strap handle, and the neck and finish of an 18th-century dark green glass bottle.

5.3 Excavation Units

Five three-foot square excavation units were excavated during Monmouth University's field investigations. Three of these were to the west of the Dunham house and two were located to the north of the house.

5.3.1 Excavation Unit 1

Excavation Unit 1 was a three-foot square located along the west side of the Dunham House just southeast of STP 33 (see Figure 5.1). It was placed in order to further investigate shovel tests that had yielded 18th-century artifacts. The unit datum was located in the SW corner of the EU at the ground surface. In the field measurements were taken in feet and inches and excavation proceeded using natural/cultural stratigraphy broken down into arbitrary levels when depths exceeded three inches. Two strata were noted. Excavation did not continue into sterile subsoil. A total of 62 artifacts were recovered (Table 5.2).

The first Stratum, (Levels 1 and 2), was excavated in two arbitrary contexts. The first extended from the ground surface to between 4 and six inches below ground surface. It is interpreted as an O horizon. The soil matrix was a dark brown (7.5 YR 3/4) clay loam. A total of 12 artifacts were recovered. These included a mixture of 18th, 19th, and possibly 20th-century material, including a fragmentary mason jar, a fragmentary case bottle, fragments of creamware, pearlware, and brick, as well as clam and oyster shell. Stratum IB, was interpreted as an A horizon and consisted of a very dark grayish brown (10YR 3/2). It was the second level excavated in EU 1. It extended from 4/6 to 8/11 inches below datum. Ten artifacts were recovered from this context, including dark green bottle glass, creamware, and pearlware.

Stratum II was excavated in two arbitrary levels (Levels 3 and 4). They were the third and fourth levels excavated in EU 1. Stratum II (Fill I) was a dark reddish brown (5YR 3/4) clayey loam. Twenty-seven artifacts were recovered from Stratum IIA (Level 3). These included ceramics: creamware, pearlware, and redware, whiteware, a case bottle fragment, and brick and shell fragments. Stratum IIB, yielded fewer artifacts (n=13). They included ceramics: creamware and pearlware, as well as clam and oyster shell fragments. Stratum II appears to be a mixed historic fill deposit, with material dating from the 18th and 19th centuries. Excavation was stopped at this point (Table 5.2).

Table 5.2: Stratigraphy Encountered in EU 1.

Stratum	Level	Depth BD*	Soil	Comments	Artifact #
O (IA)	1	0-4/6"	7.5YR 3/4 Clay Loam	Ceramics, glass, and brick fragments (18 th -20 th c.)	12
A (IB)	2	4/6-9/11"	7.5YR 3/4 Clay Loam	Ceramics and glass (18 th and 19 th c.)	10
IIA (Fill 1)	3	12/14-15/16"	5YR 3/4 Clay Loam	Ceramics and glass (18 th and 19 th c.), building materials and faunal remains	27
IIB (Fill 1)	4	16-24"	5YR 3/4 Clay Loam	Ceramics and glass (18 th and 19 th c.)	13
Arbitrary Stop					

5.3.2 Excavation Unit 2

Excavation Unit 2 was a three-foot square located along the west side of the Dunham House, southeast of Excavation Unit 1 and adjacent to STP 26. This excavation unit contained an approximately 6-inch thick dark brown (7.5YR 3/3) clay loam layer called Stratum IA. This stratum contained shell, brick, bone, window glass, charcoal, and slate. However, these artifacts are no longer present in the collection. Stratum IIA was a reddish brown (5YR 4/3) clay loam extending to a depth 9 inches below ground surface. Artifacts recovered from this stratum include 18th and 19th-century materials, including buff-bodied slipware, creamware, gray salt glazed stoneware, pearlware, and faunal remains (Figure 5.3). A total of 25 artifacts were recovered from this context. It is believed to represent a historic fill deposit. The third stratum extended from 9-12" below datum and was a dark reddish brown (5YR 3/4) silty clay loam. A mix of 18th and 19th century artifacts were recovered, for a total artifact count of 37 items. Excavation arbitrarily stopped at 12" below ground surface. Again, the deposits in EU 2 are seen as representing historic fill deposits with modest quantities of artifacts, generally in mixed contexts.

Table 5.3: Stratigraphy Encountered in EU 2.

Stratum	Level	Depth BD*	Soil	Comments	Artifact #
O (IA)	1	0/3.5"-6"	7.5YR 3/3 Clay Loam	No artifacts recorded.	Not recorded
A (IIA)	2	6-9"	5YR 4/3 Clay Loam	Ceramics and glass (18 th c.), Creamware, stoneware	25
Fill 1(IIIA)	4	9-12"	5 YR 3/4 Silty Clay Loam	Ceramics and glass (18 th and 19 th c.), building materials and faunal remains	37
Arbitrary Stop					



Figure 5.3: Select artifacts from EU 2, Stratum II, including stoneware, dot and comb buff-bodied slipware, a bone fragment, and the base of a dark green glass bottle, and a copper alloy button.



Figure 5.4: Additional artifacts from EU 2, Stratum III, including a horse tooth, Chinese export porcelain, gray salt glazed stoneware, manganese glazed redware, a fragmentary sheep/goat tooth, a pig's tusk, and a small crude Jasper biface, possibly a gunflint.

5.3.3 Excavation Unit 3

Excavation Unit 3 was a three-foot square located along the west side of the Dunham House, west of Excavation Unit 2 and adjacent to STP 27 (Table 5.4). It contained 84 artifacts. This excavation unit contained three strata, all historic fill deposits. The first stratum was a 6" thick layer of dark brown (7.5YR 3/3) clay loam. Artifacts from Stratum I include bone, brick, glass, and nails. Stratum I overlaid Stratum II, which was a very dusky red (2.5YR 2.5/2) clay loam containing a moderate quantity of historic artifacts. It was underlain by a third fill deposit, Stratum III, containing 18th-century ceramics. The unit was closed due to lack of time.

Table 5.4: Stratigraphy Encountered in EU 2.

Stratum	Level	Depth BD*	Soil	Comments	Artifact #
Fill 1 (Stratum I)	1	0-6"	7.5 YR 3/3 Clay Loam	Ceramics and glass, esp. creamware and pearlware	41
Fill 2 (Stratum II)	2	6-9"	2.5 YR 2.5/2 Clay Loam	Ceramics, esp. creamware and pearlware	9
Fill 3 (Stratum III)	3	9-16"	Not Recorded	Ceramics, tin-glazed earthenware, stoneware	33
Arbitrary Stop					

5.3.4 Excavation Unit 4

Excavation Unit 4 was a three-foot square unit, located along the north side of the Dunham House, west of Excavation Unit 5 and adjacent to STP 20 (Table 5.5). The datum was established at the ground surface in the southeast corner of the EU. This was a highly productive excavation unit and a total of 302 artifacts were recovered.

The first level in this excavation unit was Stratum I, a 4.5-inch thick layer of very dark grayish brown (10YR 3/2) sandy loam. Designated Fill 1 in the field. It is interpreted as a modern O/A horizon. It contained 48 artifacts, including redware, transfer printed whiteware, glass, and shell. Feature 1 was identified in the northwestern corner cutting into Stratum II and was filled by a very dusky red (2.5YR 2.5/2) clay loam. This shallow feature, the second context, was approximately 8.5 inches thick and contained a cluster of brick and dark soil which was excavated separately from the surrounding soil. It contained five artifacts, including an unmarked window lead, plaster, bone and glass.

The third level, identified as Stratum II in the field, is interpreted as Fill 1. It extended from 4.5 to 12-inches below datum. The soil matrix was a brown (7.5YR 4/3) clay loam. The level is a historic fill deposit. A total of 55 artifacts were noted from this context. This is a mixed 18th- and 19th-century context, containing mil glass, redware, stoneware, window glass, and nails. A possible quartzite flake was also noted in this context.

The fourth level, identified as Stratum III in the field, is interpreted as a second historic fill deposit, Fill 2. It extended from 12 to 17 inches below datum. The soil matrix was a very dark brown (7.5YR 2.5/3) clay loam. It contained 194 historic artifacts, including window glass, ceramics, plaster, bone. Ceramics included whiteware, pearlware, creamware, and porcelain. Excavation stopped because of the end of the field project.

The deposits in EU 4 are interpreted as a series of historic fill deposits, containing a mixture of 18th- and 19th-century materials, as well as what may be 17th-century material, relating to the initial incarnation of the Dunham house. Of particular note are three fragments of window lead, a small piece of lead type from a print press—a spacer, and a fragment of unglazed redware that appears to be a kiln waster (Figure 5.5). These items came from Feature 1 and Stratum II. Remodeling of the house in the 1870s, resulted in the deposition of significant quantities of building debris, as well as disturbance of what may have been a kitchen midden located to the north of the house. This material accounts for the majority of the material noted in EU 4.

Table 5.5: Stratigraphy of EU 4.

Stratum	Level	Depth BD*	Soil	Comments	Artifact #
Fill 1(Stratum I)	1	0-4.5"	10YR 3/2 Sandy Loam	Ceramics and glass, esp. pearlware and creamware	48
Feature 4-1	2	3.5-12"	2.5YR 2.5/2 Clay Loam	Cluster of brick and dark soil, window lead, plaster, bone, glass	5
Fill 2 (Stratum II)	3	4.5-12"	7.5YR 4/3 Clay Loam with Demolition Material	Ceramics, pearlware, yellowware buff-bodied earthenware	55
Fill 3 (Stratum III)	4	12-17"	7.5YR 2.5/3 Clay Loam	Plaster, whiteware creamware, pearlware, porcelain	194
Arbitrary Stop					



Figure 5.5 Select artifacts from EU 4, Stratum II, including, buff-bodied earthenware, redware vessel handle, wall plaster, gray salt glazed stoneware, three fragments of unmarked window lead, a piece of printer's type, and fragment of earthenware kiln furniture.

5.3.5 Excavation Unit 5

Excavation Unit 5 was a three-foot square located along the north side of the Dunham House, east of Excavation Unit 4 and adjacent to STP 21. The datum was established in the southeast corner of the EU at the ground surface. One hundred and sixty-seven artifacts were recovered from EU 5, with most coming from a disturbed historic fill layer.

The first level in this excavation unit was Stratum I, a very dark grayish brown (10YR 3/2) sandy loam interpreted as the O/A horizon. This stratum contained 21 artifacts, including redware, creamware, oyster and clam shell, a pipe stem, glass, mortar, sewer pipe, and brick. It was underlain by Stratum II.

Stratum II was a 0.05-foot-thick a yellowish red (5YR 4/6) clay loam interpreted as Fill 1. It contained a mixture of 18th- and 19th-century artifacts, including whiteware, milk glass, and bottle glass. This is interpreted as a mixed historic fill deposit.

Stratum III contained 20 artifacts and consisted of a very dark grayish brown (10YR 3/2) mottled with a yellowish red (5YR 4/6) sandy loam interpreted as Fill 2. Fill 2 contained a variety of artifacts including redware, pearlware, horse tack, a glass cup, nails, and clam and oyster shell. Fill 2 extended to a depth of approximately 17 inches below ground surface.

Stratum IV was an approximately 1-foot-thick dark reddish brown (5YR 3/3) friable sandy loam. This stratum was interpreted as fill from the 1870 wing of the Dunham House and designated Fill 3. A high concentration of artifacts was recovered from the top of Fill 3 including redware, creamware, pearlware, blue transfer-printed whiteware, a horseshoe, numerous bone fragments (horse teeth and bovine), pipe stems, and bottle and window glass. Artifacts quantities decreased drastically in the bottom 0.5-foot of Fill 3 and included redware, pipe stems, glass, shell, mortar, and brick. Of particular note is a ship carpenter's caulking chisel. Intriguing as Woodbridge Creek was once navigable by oceangoing vessels.

The B-horizon, a reddish brown (5YR 4/4) silty clay with pebbles, was encountered at approximately 2-feet below ground surface. To further investigate the B-horizon, a shovel test was placed at the bottom of Unit 5 extending 1-foot into the subsoil. No artifacts were recovered. The shovel test excavation in Unit 5 reached a total depth of 3.3-feet below ground surface.

Table 5.6: Stratigraphy of EU 5.

Stratum	Level	Depth BD*	Soil	Comments	Artifact #
O/A Horizon, (Stratum I)	1	0-4"	10YR 3/2 Sandy Loam	Ceramics and glass, esp. pearlware and creamware	21
Fill 1 (Stratum II)	2	4-12"	5YR 4/6 Clay Loam	Whiteware, milk glass, bottle glass	20
Fill 2 (Stratum III)	3	12-17"	10YR 3/2 Mottled W/ 7.5 YR 2.5/3 Sandy Loam	Ceramics, pearlware, yellowware buff-bodied earthenware	75
Fill 3 (Stratum IV)	4	17-24"	5YR 3/3 Sandy Loam	Plaster, whiteware creamware, pearlware, porcelain	61
Arbitrary Stop at top of B horizon	5	24"	5YR 4/4 Silty Clay W/ Pebbles		



Figure 5.6: Select artifacts from EU 5, various contexts. Redware fragment, buff-bodied earthenware fragment, a ship's carpenter's caulking chisel, pipe stem fragments.

5.4 Monmouth University Excavations Summary

Monmouth University's excavations at the Dunham House, consisted of excavating 28 STPs on a close interval grid and five three-foot-square excavation units. A total of 1,147 artifacts were recovered, washed, processed, and cataloged. Of these, 465 came from shovel tests. Four of the STPs were located to the north of the house, while the remaining 24 were located to the west of the house. STPs 22, 23, 24, 32, 34, 35, and 36 were all noteworthy for containing very large quantities of artifacts. STPs 2, 3, and 13 encountered a layer of cobbles, roughly one foot below the ground surface, which may represent a historic ground surface or paved pathway. STP 23 encountered what may be an in-filled cellar or other 18th-century feature.

Excavation Units 1, 2, and 3, all yielded moderate quantities of historic artifacts from what appear to be mixed contexts. Rich midden deposits were noted in Excavation Units 4 and 5 to the north of the house. These deposits contained a mixture of 18th- and 19th-century material and appear to have been disturbed and covered over during the building's expansion in the 1870s.

Monmouth University's excavations indicated that a rich site, containing substantial deposits of early colonial material was present. Early items included window leads from EU 4, none of which were marked. A piece of lead type, a ship carpenter's chisel, and a fragment of what appears to be early kiln furniture also came from deposits in EU 4. However, as subsequent excavations would show, these deposits extended to great depth and were not fully sampled during the 2002 excavations.