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Dating Methods and Techniques at the John Hallows Site (44WM6): A Seventeenth-Century Example

Lauren K. McMillan, D. Brad Hatch, and Barbara J. Heath

The John Hallows site (44WM6) in Westmoreland County, Virginia, was excavated between July 1968 and August 1969. No report of the excavations was completed at that time, although an article summarizing the findings was published in Historical Archaeology in 1971, dating the site's occupation to the period from the 1680s to 1716. From 2010 to 2012, a systematic reanalysis of the site, features, history, and artifacts was conducted by archaeologists at the University of Tennessee, Knoxville. Benefiting from nearly 40 years of advances in Chesapeake archaeology, the reanalysis has challenged accepted dates for the site's occupation, which is now placed at 1647–1681. In this article, we will discuss the multiple lines of evidence in support of the newly interpreted date range.

Des archéologues de la société d'archéologie de la Virginie et de la Virginia Historic Landmarks Commission ont procédé à des fouilles archéologiques du site de John Hallows (44WM6) dans le comté de Westmoreland en Virginie entre juillet 1968 et août 1969. Aucun rapport archéologique n'a été complété suite à ces fouilles. Par contre, un article résumant les résultats des fouilles publié dans un numéro du périodique Historical Archaeology en 1971 affirme que l'occupation du site se situe entre les années 1680 et 1716. Entre 2010 et 2012, des archéologues de l'université du Tennessee à Knoxville ont procédé à une nouvelle analyse du site, des éléments mis aux jours à l'époque, de l'histoire du lieu et des artefacts recueillis. Grâce à l'évolution de la discipline archéologique dans la région de Chesapeake depuis près de 40 ans, cette nouvelle analyse met en question les dates acceptées jusqu'ici pour l'occupation du site et propose plutôt une période d'occupation de 1647 à 1681. Cet article présente les multiples indices appuyant la nouvelle date proposée.

Introduction

First identified in 1968 by Virginia Sherman and William Buchanan, Jr., the Hallows site is situated on the shores of Currioman Bay near Hollis Marsh, on the south side of the Potomac River in Westmoreland County, Virginia (FIG. 1). The site was excavated between July 1968 and August 1969 on weekends by the Archeological Society of Virginia and the Virginia Historic Landmarks Commission with a crew of four to six volunteers under the direction of Buchanan and Edward Heite. Virginia Sherman compiled documentary evidence related to the site (Sherman 1969; Buchanan and Heite 1971: 40). The excavation of the Hallows site was a salvage project conducted ahead of the construction of the Stratford Harbour development. Over 4,000 artifacts, not including faunal remains, were recovered from the site.

Due to the lack of funding for the excavation and subsequent analysis, a comprehensive report on the site was never written. The most detailed analysis and interpretation of the site, up to this point, was an article by Buchanan and Heite (1971) in *Historical Archaeology*. While Virginia Sherman conducted historical

research on John Hallows, the information was never fully synthesized to create a context for the site or a narrative of Hallows's life. Indeed, the artifacts were not cataloged in any systematic fashion until 1984 during the course of Charles Hodges's thesis research, and the faunal remains were never analyzed. Despite the lack of comprehensive analysis, however, the site's fortified plan has been interpreted as a response to Susquehannock raids that preceded Bacon's Rebellion (Neiman 1980: 75; Carson et al. 1981: 191; Hodges 1993: 205–208, 2003: 509). From 2010 to 2012, Barbara Heath from the Department of Anthropology, in collaboration with students and faculty at the University of Tennessee, Knoxville, initiated a reanalysis of the site.

The research conducted at the University of Tennessee is the first complete analysis of the Hallows site since its excavation in 1968–1969. By combining detailed historical documentation relating to site residents, particularly John Hallows and his family, with the analysis and reanalysis of material culture from the excavations, new and significantly different interpretations of the site and the broader region of Virginia's Northern Neck are

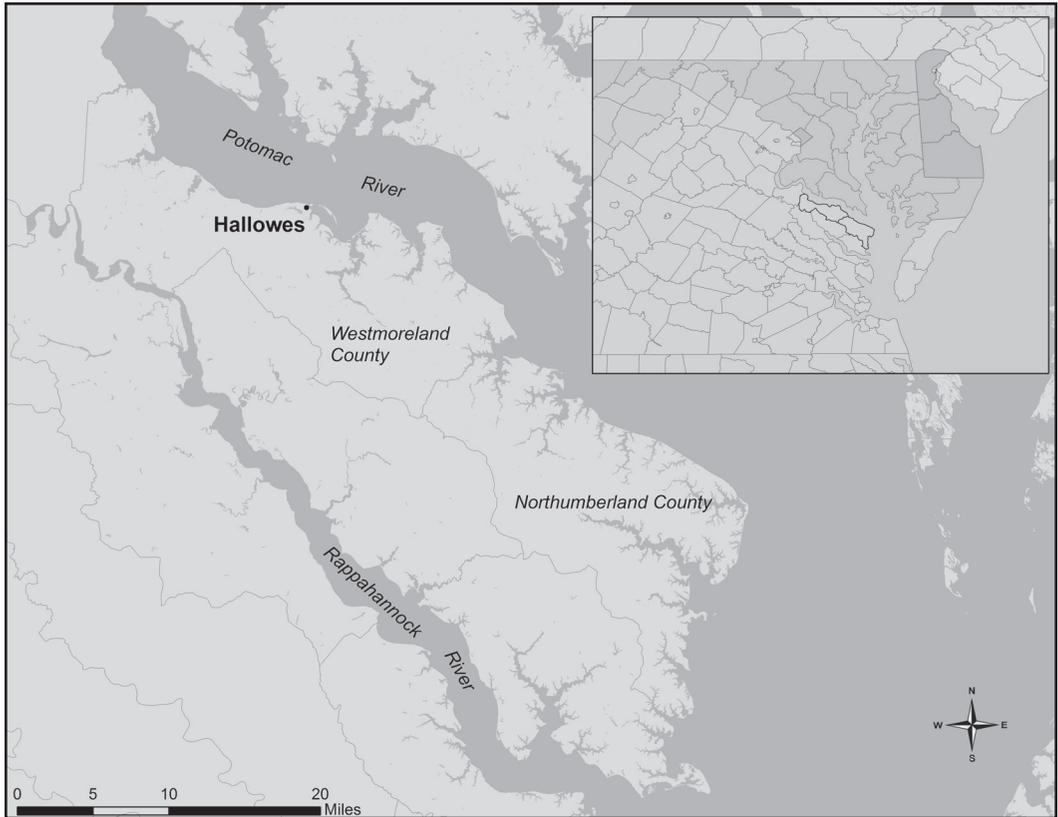


Figure 1. Map of the Virginia showing the location of the Hallowes Site on the Northern Neck of Virginia; inset in map showing the location of the Northern Neck of Virginia. (Map by Crystal Ptacek, 2013.)

presented here. The reanalysis project revealed two to three phases of construction and alteration to the house and adjacent landscape. The first phase included a 50×20 ft. post-in-ground building with an off-center brick chimney that was fortified with bastions on two corners (FIG. 2). Subsequent phases consisted of a possible addition to the east face of the house (phase 2), and the construction of fences in the yard (phase 3) that would have hindered lines-of-sight from the bastions and likely postdated the destruction of these defensive features (Hatch, McMillan, and Heath 2013; Hatch, Heath, and McMillan 2014). Our findings challenge previous research and help to clarify the early history of Virginia's Potomac River valley. The report (Hatch, McMillan, and Heath 2013) provides more detailed information regarding the entire project. Hatch's (2012) analysis of the faunal assemblage highlights the importance of the deer trade at the site.

McMillan's (2015) study examines trans-Atlantic and inter-colonial trade networks as revealed through clay tobacco pipes at the John Hallowes site. Hatch, Heath, and McMillan (2014) offer a new analysis of the architecture at Hallowes, interpreting it as a response to conflict surrounding Ingle's Rebellion (1645–1646) and as part of a wave of subsequent emigration from Maryland to the Northern Neck.

Here we summarize the methods and data used to determine the newly assigned date of 1647–1681 for the site. We hope that other researchers will find our combination of various dating techniques useful, especially given our use of several methods that are rarely employed, such as ceramic intersections (South 1977: 214; Malios 1999, 2000), methods that are fairly new, relatively untested, or unconventional, including percentages of faunal remains and locally made pipes (Miller

1984, 1988; Bowen 1996; Cox et al. 2005), and techniques that, when initially proposed, were not intended to be used on sites that were occupied prior to 1680, including mean ceramic and pipe-stem formulas (Binford 1962; Noël Hume 1969: 300; South 1977: 203–204). We have found that all of the methods used support the newly assigned date range of 1647–1681, placing the occupation of the Hallows site approximately 30 years earlier than originally thought. The new occupation range has significantly changed the interpretation of the site, particularly in regards to the fortifications (Hatch, Heath, and McMillan 2014). Based on the results of the reanalysis, the combination of multiple lines of evidence and several different dating techniques allow for a nuanced and detailed understanding of a site that was occupied for less than 40 years.

Site History

The site derives its name from the original owner of the property, John Hallows, who was

born in Lancashire, England and came to the New World at the age of 19 as an indentured servant. Hallows completed his term of indenture in 1639 and, shortly after, married his first wife, Restitute Tew. John Hallows then acquired land on St. Michael's Hundred, near present day Point Lookout in St. Mary's County, Maryland, probably near Hollis Lake. He and his family remained in Maryland for the next eight years (Maryland Historical Society 1887: 67, 83, 186, 214, 259; Sherman 1969: 2; Buchanan and Heite 1971: 38–39).

The Hallows family fled Maryland for the Northern Neck of Virginia in 1647 after participating in Ingle's Rebellion, a failed uprising against the government of Maryland. John Hallows soon became a prominent trader and member of the gentry along the Potomac River, was a commissioner of Westmoreland County from 1653 to 1657, and was named sheriff of that county in 1657, the year that he died (Library of Virginia 1653–1659: 80). Hallows's second wife, Elizabeth, and her new husband, David Anderson, likely lived

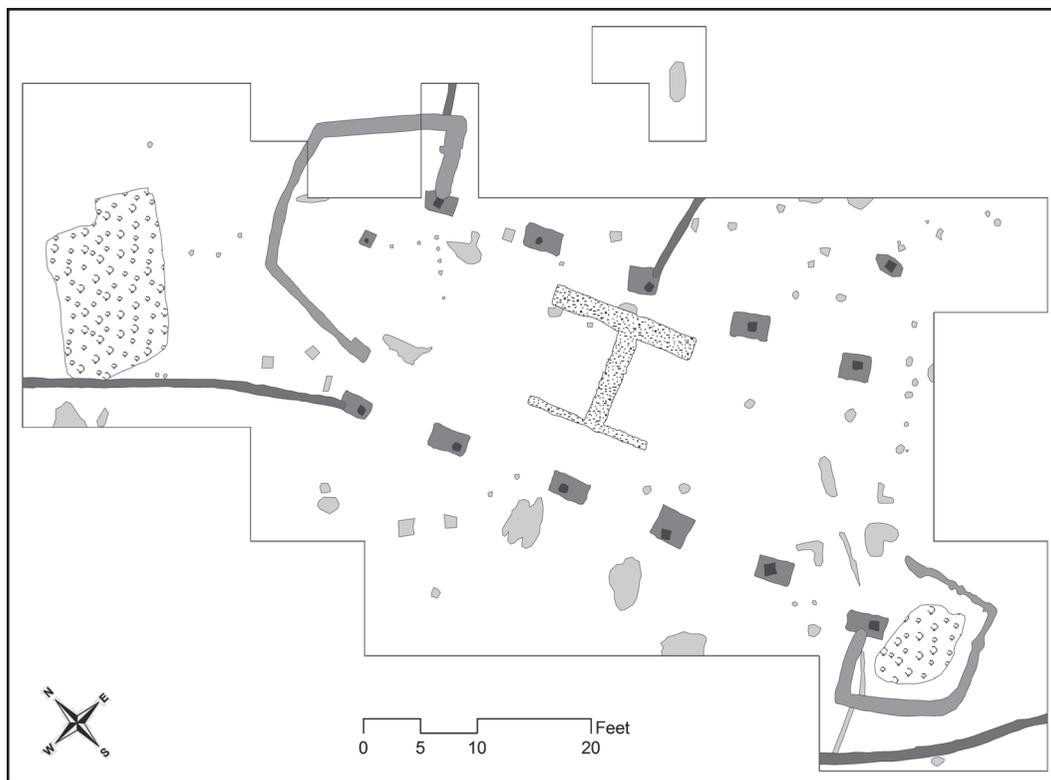


Figure 2. Site map (Map by Crystal Ptacek, 2013.)

in the Hallows house until they moved to Anderson's property in Stafford County, Virginia, in 1666 (Nicklin 1938: 440).

The property then passed to Hallows's daughter, Restitute, and her husband John Whiston, who repented the land in 1667, but probably did not live there. The site was likely occupied by tenants from 1667 until the house was abandoned. Upon the death of the Whistons in 1674, their daughter Restitute (John Hallows's granddaughter) and her husband Mathew Steele inherited the property.

In 1681, Restitute Whiston Steele's second husband, John Manley, was given permission by the Westmoreland County courts to evict the tenants from the Hallows property, ending the occupation of the site. The existing records do not provide the reasons behind this eviction (Library of Virginia 1675–1689: 220; Buchanan and Heite 1971: 39). The land stayed in the Manley family until 1722, when Samuel Hallows, John's distant cousin, sued for and won the property. He never came to Virginia and in 1733 sold the land to Thomas Lee of Stratford Hall. The property then stayed in the Lee family until 1838 as part of the plantation at Stratford Hall (Buchanan and Heite 1971: 39). It went through a series of subsequent owners before being acquired by the Stratford Harbour development in the 1960s.

Previous scholars who have included the site in their research have differed about its dates of occupation, but all agree that the fortifications associated with the house date to the 1670s. Neiman (1978: 3107) and Carson et al. (1981: 191) assigned the dates of occupation of the site to the 1670s and 1680s, when Restitute owned the property with her first husband Mathew Steele and second husband John Manley. Buchanan and Heite (1971: 39) believed that the house was built and occupied during Manley's tenure on the property or by subsequent descendants or tenants. Hodges (1993: 205–206, 2003: 497) stated that the house could have been built earlier, but that the fortifications date to the period of Susquehannock raids during the fourth quarter of the 17th century.

Field Methods

The only surviving outline of field methods for the excavation is a short section in Buchanan and Heite (1971: 39–41). Therefore, excavation methods had to be reconstructed based on field

records, photographs, and the material culture recovered from the site. Prior to excavation every weekend, the volunteer crew surface collected the site, evidenced by the large number of artifacts with context number 21, a general surface context. While these artifacts have no horizontal provenience, they still remain useful for the interpretation and chronology of the site.

Excavations tended to follow the standard practices of historical archaeology in the 1960s and 1970s. The site was gridded and a system of lot numbers, grid numbers, and feature numbers was used to record artifact- and feature-provenience information. The smaller units were then excavated to subsoil with a shovel, and artifacts were likely picked out by sight, since there is no mention of screening or photographs of screens. The artifacts are generally much larger in size than 0.25 in.; and archaeologist Heite was opposed to screening, even 25 years after the excavation of the Hallows site (Heite 1992: 15–16). Based on photographs, the site appears to have been either partially stripped or at least disturbed by a bulldozer at some point during the excavation.

The features appear to have been excavated more carefully than the plowzone. Field photographs suggest that all features were trowel excavated, and distinct layers were noted, recorded, and kept separate, although some posthole and post-mold fills were combined. The artifacts from within these features were probably picked out by sight rather than screened. However, the recovery within features appears to have been better than in the plowzone, judging from the smaller sizes of artifacts, likely a result of more careful trowel excavation. These excavation methods have biased the assemblage in favor of larger and more noticeable artifacts, probably minimizing the recovery of beads, straight pins, and small animal bones.

Dating the Site: Artifacts

The Hallows site produced an assemblage of 4,581 artifacts and 3,675 faunal remains, excluding nine artifacts on loan to the Westmoreland County Museum that were unavailable for study. These diagnostic pieces were previously reported on in Buchanan and Heite's 1971 article in *Historical Archaeology*; based upon their descriptions, the unavailability of

these artifacts did not significantly impact our interpretations. Additionally, eight boxes of brick were excluded from the reanalysis. Historical ceramics and clay tobacco pipes comprised the majority of the artifact assemblage: 34% (n=1,599) and 22% (n=1,021), respectively, of the total number of artifacts (TABS. 1 and 2).

Common methods of dating for archaeological sites from the 17th and 18th centuries used in the reanalysis included calculating an adjusted mean ceramic date for the site and for features, dating with *terminus post quem* (TPQ), using a ceramic intersection, and calculating pipe-stem dates. Historical research allowed for the creation of a hypothesized date range of occupation of 1647–1681. This date range is bracketed on one end by John Hallowes's arrival in Virginia, and on the other by a reference in the Westmoreland County records that describes the eviction of tenants from the land (Library of Virginia 1675–1689: 220). The hypothesized

date range yielded a mean occupation date of 1664 that is consistent with the dates arrived at through the analysis of the archaeological assemblage (TAB. 3). The latest dated artifact types that are contemporary with the assemblage are North Devon gravel-tempered coarse earthenware, with a TPQ of 1675; and a Priamus Williams marked pipe with a TPQ of 1677. Indeed, none of the artifacts, with the exception of two clearly intrusive sherds of ironstone that were surface collected, appear to date after 1681, and all the artifacts fall comfortably within the proposed 1647–1681 occupation range.

Ceramics

A total of 1,599 ceramic sherds were excavated or collected from the Hallowes site. Of that total, 216 sherds (14%) came from features, while the other 1,383 sherds (86%) were collected from the surface or plowzone units.

An initial minimum number of vessels (MNV) count yielded 199 vessels (TAB. 4). The MNV count was performed using standard methods, which include sorting sherds by type and then determining the minimum number of vessels needed to account for the sherds present in each type based upon form, decoration, paste, and other diagnostic features (Orton et al. 2007: 21, 172; Voss and Allen 2010; Poulain 2013). All vessel forms were determined based on the Potomac Typological System (Beaudry et al. 1983). The majority of sherds (n=955) and vessels (n=109) are of Morgan Jones type, a coarse locally made earthenware defined by hematite and occasional gravel inclusions with unique rim forms (Straube 1995); see below for a more detailed discussion of this ware type. The second most frequent type is a red-bodied, micaceous Portuguese earthenware known as Mérida (240 sherds, 47 vessels) that was not common in the Chesapeake after 1650. Because the overall number of vessels in the assemblage is significantly higher than

Table 1. Ceramic ware types by sherd count.

Ware type	Surface	Feature	Total
Delft/tin-glazed earthenware	50	9	59
Ironstone	2	—	2
Martincamp (earthenware)	7	4	11
Mérida	211	29	240
Metropolitan slipware	5	—	5
Morgan Jones type	807	148	955
North Devon gravel tempered	57	2	59
North Devon sgraffito	18	2	20
North Italian slipware	7	1	8
Rhenish blue-and-gray stoneware	114	17	131
Rhenish brown stoneware	10	1	11
Saintonge	2	—	2
Spanish starred costrel	1	—	1
Staffordshire-type slipware	13	—	13
Colonaware*	—	—	—
Unidentified	61	21	82
Total	1,365	234	1,599

*One colonaware bowl, while not available for study, was recovered from the site and was illustrated in the site photographs. However, no other sherds of colonaware appear to have been recovered from the site.

Table 2. Tobacco-pipe bore diameters by master context.

	F. 17	F. 63	Bastions	Fence lines	Features total	Site total
Local	15	11	3	1	30	139
Imported	5	45	5	8	63	882
5/64 in.	—	—	—	—	—	9
6/64 in.	2	3	—	—	5	90
7/64 in	2	16	1	3	22	391
8/64 in	—	5	—	—	5	97
9/64 in	—	3	—	—	3	36
Unmeasurable	1	18	4	5	28	259

counts from previously analyzed 17th-century sites in the region, and because the high counts resulted primarily from the large number of vessels attributed to these two types, it was decided that they should be recounted using a method that was as conservative as possible. The revised vessel count was conducted using only rim sherds that had measurable diameters, or rims that were so unique in form or paste that they had to be unique vessels. The revised count yielded a total of 71 Morgan Jones-type vessels and 33 Mérida vessels. While this exercise reduced the number of vessels for both of these types and the overall vessel count for the site, it still reveals that both Morgan Jones-type and Mérida wares dominate the assemblage and are present in unusual quantities. Their presence is likely the result of cultural activity, rather than the idiosyncrasies of the analyst.

Table 3. Dating methods and results for Hallowes assemblage.

Dating method	Entire site	Features
TPQ (adjusted)	1675	1675
MCD (adjusted)	1670	1664
Binford formula	1660	1657
Hanson formula	1665	1662
Harrington histogram	1650–1680	1650–1680
Ceramic intersection	1650–1675	1650–1675
Historical records	1647–1681	—
Historical records mean	1664	—

To test whether the vessel-counting method initially used at Hallowes was not conservative enough and, thus, inflated the MNV, the average number of sherds represented by a vessel was compared with the Newman's Neck site, occupied ca. 1680–1740 (Heath et al. 2009) (TABS. 5 and 6). The ceramic vessel assemblage at Newman's Neck was more typical of a late 17th-century occupation in terms of the number of vessels and the proportion of forms when compared to previous research by Yentsch (1990, 1991). For comparative purposes, sherds were separated by ware type, and the sherd count was divided by the vessel count for that type. The average size of sherds for each ware type was also compared between the sites to help determine whether the assemblages were comparable physically, due to either taphonomic or recovery issues. Essentially, if sherd sizes were significantly different between the two sites for the same ware type, then the average number of sherds, representing a single vessel on the site with larger fragments, might be expected to be lower than that for the site with smaller fragments. Fortunately, for Hallowes and Newman's Neck, sherd size was similar and did not appear to be an issue for most ware types. Indeed, when the average number of sherds representing a vessel is compared between the two sites for the same ware types, the results are quite similar, indicating that vessels were counted using comparable methods, despite the fact that the analyses were performed years apart and by different people. If anything, the slightly higher number of sherds represented by a single vessel for many of the comparable ware types at Hallowes

Table 4. Ceramic ware types by minimum vessel count.

Ware type	Vessel form	Count
Morgan Jones type	Baulster jar	1
Morgan Jones type	Bowl	10
Morgan Jones type	Bowl or mug	2
Morgan Jones type	Bowl or pitcher	5
Morgan Jones type	Bowl or pot	5
Morgan Jones type	Butter pot	3
Morgan Jones type	Milk pan	59
Morgan Jones type	Pan	3
Morgan Jones type	Pitcher	2
Morgan Jones type	Pitcher or pot	2
Morgan Jones type	Pot	6
Morgan Jones type	Unidentified Hollow	11
Mérida	Bowl	39
Mérida	Bowl/pan	1
Mérida	Milk pan	1
Mérida	Pan	6
North Devon gravel tempered	Milk pan	8
North Devon gravel tempered	Butter pot/milk pan	1
Delft/tin-glazed earthenware	Bottle	1
Delft/tin-glazed earthenware	Bowl	2
Delft/tin-glazed earthenware	Bowl/ointment pot	1
Delft/tin-glazed earthenware	Charger	1
Delft/tin-glazed earthenware	Unidentified	1
Rhenish brown stoneware	Jug	6
Rhenish brown stoneware	Unidentified hollow	1
Rhenish blue-and-gray stoneware	Jug	10
North Devon sgraffito	Charger	1
North Devon sgraffito	Unidentified	1
Staffordshire-type slipware	Mug	1
Staffordshire-type slipware	Unidentified	1
Martincamp (earthenware)	Flask	1
Metropolitan slipware	Unidentified	1
North Italian marbled slipware	Charger	1
Saintonge	Unidentified	1
Spanish starred costrel	Costrel	1
Colonoware*	Bowl	1
Unidentified coarse earthenware	Unidentified hollow	1
Total		199

may, in fact, represent a slightly more conservative approach in that collection to assigning vessels.

The cultural factors affecting the MNV count at the site likely stem from John Hallows' high social and economic status, and his membership in a Potomac River community that had strong ties to Morgan Jones through Jones's master, Robert Slye, in Maryland. Before addressing these cultural factors, however, the biases of the comparative 17th-century dataset should be noted. The majority of 17th-century archaeological sites that have had a MNV count performed and published have been summarized by Yentsch (1990, 1991). While there have been additions to this work since this research was published (Pogue 1997: 241-245), Yentsch's articles are still seen as the baseline for interpreting and comparing minimum vessel counts for 17th-century Chesapeake sites.

Of the nine 17th-century sites that Yentsch analyzed, six were occupied by tenants of the lower to middling class, and the MNVs on those sites ranged from 19 to 67 total vessels. Three others were grouped as high-status sites whose vessel counts ranged from 88 to 298 (Yentsch 1991: 56). The assemblage from the Maine site, a Virginia Company Period settlement, contained 88 vessels. The Maine site likely has its own unique contextual factors that account for its number of vessels, particularly given an occupation period that coincided with the early stages of the development of the tobacco economy and the access to trade that accompanied it. Therefore, when analyzing patterns in MNV

*One colonoware bowl, while not available for study, was recovered from the site and was illustrated in the site photographs. However, no other sherds of colonoware appear to have been recovered from the site.

Table 5. Sherds per vessel and average sherd size at Hallowes by ware type (does not include one colonoware bowl and one unidentified of coarse earthenware bowl).

Ware type	Sherd count	Vessel count	Avg. diameter (mm)	Sherds per vessel
Morgan Jones type	955	109	34.9	8.8
Mérida	240	47	37.5	5.1
Rhenish blue-and-gray stoneware	131	10	30.2	13.1
North Devon gravel tempered	59	9	43.9	6.6
Delft / tin-glazed earthenware	59	6	24.9	9.8
Rhenish brown stoneware	9	6	41.1	1.5
North Devon sgraffito	20	2	26.8	10.0
Staffordshire-type slipware	13	2	23.8	6.5
Martincamp (earthenware)	11	1	28.2	11.0
Metropolitan slipware	5	1	22.0	5.0
North Italian marbleized slipware	8	1	33.1	8.0
Raeren brown	2	1	35.0	2.0
Saintonge	2	1	40.0	2.0
Spanish starred costrel	1	1	25.0	1.0
Total	1,515	197	34.6	7.7

counts it is important to realize that the number of high-status sites that have been analyzed are exceedingly few, and are all located along the southern reaches of the Chesapeake Bay. In general, published 17th-century vessel counts are biased toward tenant sites and sites located along the James River.

The Hallowes site fits securely into what would be called a “high-status” category. By the time of his death in 1657, John Hallowes had served as a commissioner of, first, Northumberland, and then, Westmoreland County, for almost a decade. He was also a major in the militia and a sheriff, both offices that were not bestowed upon lower- to middle-class farmers in the 17th century. Most impressively, however, John Hallowes was the largest landowner on the Northern Neck prior to 1660, possessing over 5,000 ac. of land (Buchanan and Heite 1971: 39). Based upon what is known about Hallowes from historical records, there is no question about his place among the richest men who settled on the Potomac River during the mid-17th century. It should come as no surprise, then, that the MNV count from his site more closely resembles the totals that Yentsch reports for

high-status sites, rather than lower- to middle-status sites (Yentsch 1991: 56).

John Hallowes’s personal connections also explain the high count of Morgan Jones-type wares at the site. His social network consisted of a community that spanned the Potomac River and included Robert Slye, Jones’s master. It has been demonstrated elsewhere that John Hallowes was among a group of former Marylanders who fled to Virginia in 1647 as a result of Ingle’s Rebellion (McMillan and Hatch 2012; Hatch, McMillan, and Heath 2013; Hatch 2012; Hatch, Heath, and McMillan 2014). This group formed a distinct community along the Potomac River that maintained connections on both shores. One of these community members was Thomas Speke, who lived only a few miles from Hallowes and served with him as a county commissioner in Northumberland and Westmoreland counties. Thomas Speke married Frances Gerrard, the daughter of a prominent Marylander who lived across the Potomac near St. Clement’s Island. In his will, dated 1659, Speke appointed his father-in-law, Thomas Gerrard, and Speke’s “loveing brother in law Mr. Robert Slye” to act as guardians for his son

Table 6. Sherds per vessel and average sherd size at Newman's Neck by ware type.

Ware type	Sherd count	Vessel count	Avg. diameter (mm)	Sherds per vessel
Buckleyware	26	3	44.8	8.7
Chinese porcelain	2	2	30.0	1.0
Colonware	14	2	31.8	7.0
Delft/tin-glazed earthenware	32	4	20.2	8.0
Gray-bodied stoneware	2	1	42.5	2.0
Iberian ware	2	1	55.0	2.0
Jackfield type	7	2	25.0	3.5
Manganese mottled	22	3	28.0	7.3
Morgan Jones type	29	5	37.8	5.8
North Devon gravel free	40	2	25.9	20.0
North Devon gravel tempered	110	12	56.7	9.2
North Devon sgraffito	11	2	44.1	5.5
Pearlware	2	1	40.0	2.0
Redware	55	2	30.3	27.5
Rhenish brown stoneware	5	2	43.0	2.5
Soft-paste porcelain	1	1	20.0	1.0
Staffordshire-type slipware	13	5	25.4	2.6
Westerwald	22	2	34.1	11.0
White salt-glazed stoneware	3	4	28.3	0.8
White slip-dipped stoneware	8	1	33.8	8.0
Total	406	57	38.3	7.1

Thomas during his minority (Library of Virginia 1653–1659: 103–105). Robert Slye held Morgan Jones's indenture when he came to Maryland in 1661. Despite the fact that both Hallows and Speke had died prior to Jones's arrival in the region, the community exchange and communication networks established by these two men almost certainly outlived them, and provided the means for the occupants of the Hallows site to acquire unusually large quantities of Jones's wares. Indeed, the ceramic assemblage from Nomini Plantation, Speke's home, which is currently being analyzed by the authors at the University of Tennessee, also shows evidence of a large number of vessels in general ($n=265$), and of Morgan Jones-type wares ($n=58$), in particular (McMillan and Hatch 2013).

In an effort to be as conservative as possible, the revised minimum count omitted sherds that

were unique vessels, but which did not consist of measurable rim fragments. As a result, it is clear that that method undercounted the assemblage, and the resulting count is not an accurate reflection of the true minimum. Therefore, the following discussion will refer to the count as originally calculated, since it is likely more accurate. Of the 1,597 sherds of 17th-century ceramics recovered at the site, 20% of the sherds and 26% of the MNV counted have production dates that end at or prior to 1660 (FIG. 3). These figures represent a conservative approach to dating, as some of the Rhenish blue-and-gray stoneware, Rhenish brown stoneware, tin-glazed earthenware, and North Devon sgraffito could also fall into the pre-1660 date range.

A mean ceramic date (MCD) for the whole site was calculated to be 1676. An MCD for ceramics from site features was calculated to

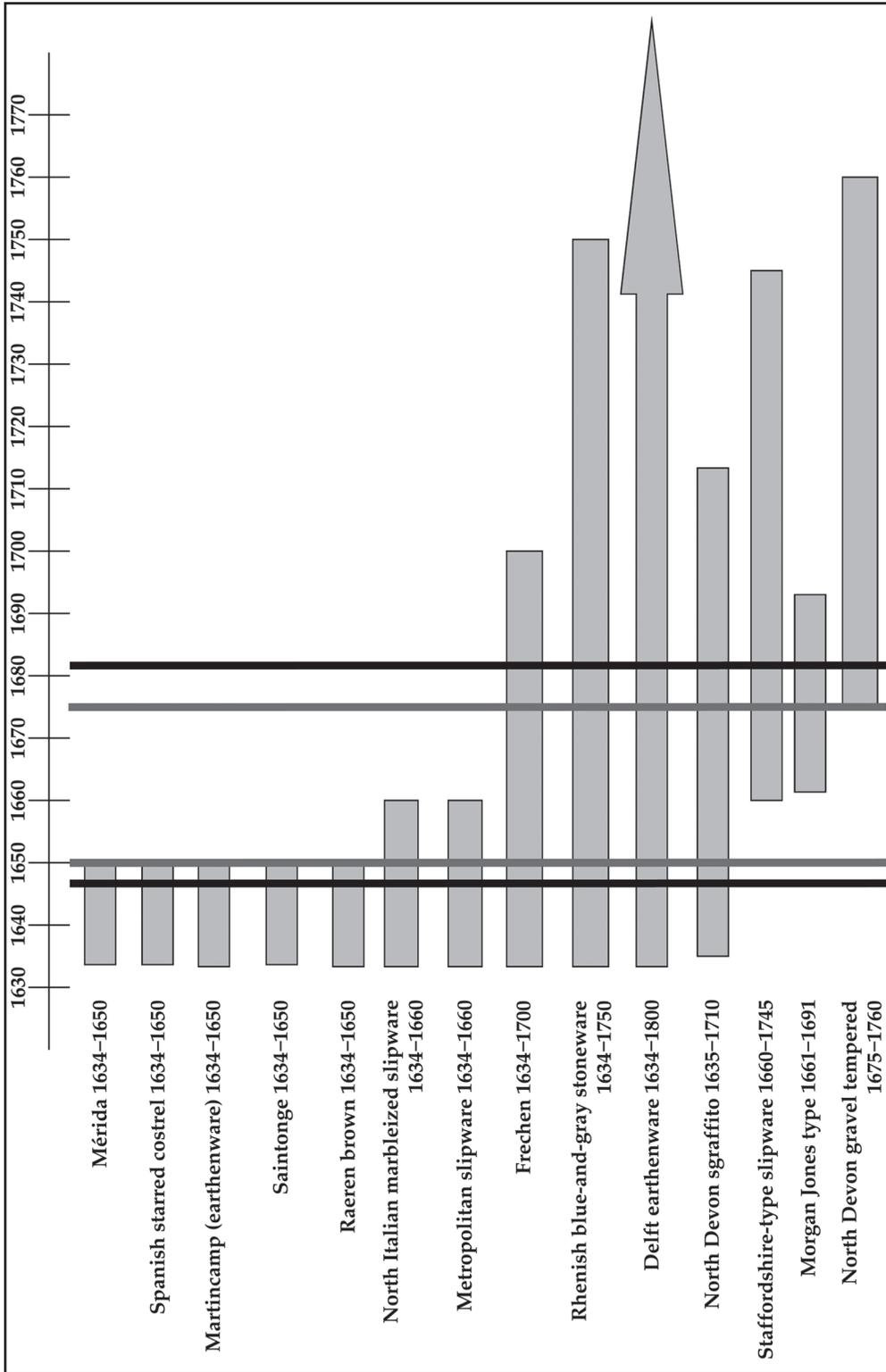


Figure 3. Ceramic intersection with the date-range brackets determined by ceramic production in gray, and occupation dates derived from historical records in black. (Figure by Lauren McMillan, 2013.)

be 1675. These dates were based upon all the historical ceramic types on the site. However, it is useful to remove ceramic types that can skew the calculated dates (South 1977).

Artifact date ranges were adjusted by removing wares with extremely long periods of production, in this case tin-glazed earthenware (there was no identifiable majolica in the assemblage), to prevent the date from being extended artificially. Two fragments of surface-collected ironstone were also excluded because they were clearly unassociated with the occupation of the site. The beginning dates for all the early ceramic types were pushed forward to 1634, since the European occupation of the Potomac River drainage did not begin until the settlement of St. Mary's City in that year. In effect, the adjustment of these dates kept the mean ceramic date from being pulled back in time artificially. In addition, while North Devon gravel-tempered coarse earthenware can date as early as 1650, for this study an introduction date of 1675 has been assigned in keeping with common use in the Chesapeake (Noël Hume 1969: 133; Maryland Archaeological Conservation Lab 2012).

Morgan Jones-type ceramics were also excluded from the mean ceramic date, since the precise date range for the ware is uncertain. Jones crafted pottery in the Chesapeake during the second half of the 17th century, and wares attributed to his workshops are found throughout the region. Traditionally, the type has been given a conservative TPQ date of 1669, based on a reference in the Westmoreland County, Virginia, records of that year that named him as "Morgan Jones, potter" (Library of Virginia 1665–1677), and another that refers to pottery that he produced "at ye Potthouse at Mr. Quigley's Plantation" (Straube 1995: 24). He arrived in Maryland in 1661, however, indentured to Robert Slye (Maryland State Archives 1661–1680: folio 85), and owned land adjacent to Slye's plantation by 1667. A land patent, dated November of that year, refers to him as "Morgan Jones of Charles County, potter" (Maryland State Archives 1666–1668: 171). An inventory taken of Slye's property in 1671 lists "431 earthen porringers, Tenn Butter Pots, Thirty one Milke Pans, [and] Three small jug" in an outbuilding ("the store") and a separate "Potthouse" that Slye had subsequently repurposed for boat

storage (Maryland Provincial Records 1671 5: folio 32; King and Breckenridge 1999; Julia King 2013, elec. comm.). These lines of evidence suggest that Jones may have been employed as a potter during his indenture, perhaps as early as 1661, and confirm that he was making pottery by 1667. Given the likelihood that Jones was producing his wares during or immediately following his term of indenture, a mid-1660s TPQ date has been assigned to this type at the Hallows site. However, Morgan Jones-type ceramics were excluded from the MCD because of the uncertainty involved in their identification. While many fragments appear to resemble ceramics produced by Morgan Jones, there is a great deal of variation within the group. Furthermore, locally produced coarse earthenwares are a poorly understood ceramic type in the 17th-century Chesapeake region, due both to their variation and similarities (Kelso and Chappell 1974; Straube 1995), and using them to assign dates to a site is inappropriate.

Following these considerations, the adjusted MCD for the site is 1670, with a standard deviation of ± 27 years, which gives a date range of 1643–1697. The adjusted date for features is 1664 with a standard deviation of ± 23 years, which gives a date range of 1641–1687. Both of these ranges and MCDs easily encompass and strongly agree with the date range of 1647–1681 predicted from the historical records. The 1681 end date for the site, while gleaned from a historical reference, is supported by the presence of North Devon gravel-tempered earthenware as the latest dating ceramic type, as well as the absence of English brown stoneware, which entered the Chesapeake sometime in the last quarter of the 17th century (Noël Hume 1969: 114; Skerry and Hood 2009: 66).

One last dating technique using the ceramic data was employed to determine and verify the site's occupation. Ceramic intersections graphically portray chronological arrangement of manufacturing periods of ware types present at a site (FIG 3). The period of overlap between ware types establishes the occupation range, which is represented by two brackets. The first bracket on the left is placed on the latest date of the earliest ceramic ware present. The end date, or right bracket, is placed on the earliest date of the latest ceramic type in the assemblage (South 1977: 214). The ceramic intersection date range is represented by the light gray brackets in

Figure 3. This date range can then be compared to occupation dates derived from documentary evidence, the use of TPQ and *terminus ante quem*, and dating methods applied to English ball-clay pipes.

In his analysis of the Reverend Buck site (44JC568) and the Sandy's site (44JC802), Seth Mallios (1999: 48; 2000: 49–50) found that there was a strong correlation between the ceramic intersection and these other methods of establishing occupation ranges. At the Sandy's site, Mallios was able to determine, using these combined methods, that the site was occupied for no more than 20 years. When this method was tested for Newman's Neck (44NB180), a site where various lines of evidence suggest a much longer occupation span, no distinct period of overlap for ceramic production ranges was observed (Heath et al. 2009: 126). This method was used successfully by the authors to determine the occupation dates of Coan Hall (44NB11), another 17th-century site on the North Neck of Virginia, where there was a distinct period of ceramic overlap. When combined with additional lines of evidence, including the historical record, the occupation of the Coan Hall site was determined to date from ca. 1662 to 1727 (McMillan and Heath 2013). Based on the results from Reverend Buck, Sandy's, Newman's Neck, and Coan Hall, this method appears to work only on sites that were occupied for short periods of time, and on sites that were never reoccupied.

At the Hallowes site, the earliest wares present—Mérida, Spanish starred costrel, Martincamp, Saintonge, and Raeren brown—first appeared with English colonization of Maryland in 1634, with production stopping by 1650. The latest dating type, North Devon gravel-tempered coarse earthenware, was first produced around 1650, but was not commonly used in the Chesapeake until after 1675. This range, 1650–1675, closely approximates the 1647–1681 occupation range suggested by the documentary evidence, and is supported by the MCDs and tobacco-pipe data. The ceramic intersection also indicates a fairly short period of occupation. When combined with the historical record, the temporal brackets were modified to include John Hallowes's initial occupation in 1647 and the eviction of tenants from the property by John Manley in 1681 (FIG. 3). The date range determined by the documentary evidence is

represented by the black brackets in Figure 3. In addition to the ceramic types present at the site, the absence of certain post-1680 diagnostic types, specifically English brown and Nottingham stonewares, and Buckley and manganese-mottled earthenwares, supports the conclusion that the occupation of the site ended by the 1680s.

Tobacco Pipes

The tobacco-pipe assemblage at the Hallowes site consists of 1,021 fragments. Manufacturing origin of the pipe fragments was determined based on material color, texture, inclusions, composition, and shape. The two main categories of analysis used for the tobacco pipes were imported and locally made. Imported pipes are those from Europe, either England or the Netherlands, and are made of white ball clay. The locally made pipes were made in the New World, and in the case of the Hallowes site, in the Chesapeake Bay region. The locally made pipes at the Hallowes site range in color from red to brown, gray, and buff. Even the locally made pipes that are almost pure white in color have inclusions that differentiate them from imported pipes.

Of these pipe fragments, 882 (86%) were imported white ball clay, while the remaining 139 (14%) were locally made. Imported white clay pipes from at least four identifiable pipe makers were present in the collection, including those of Llewellyn Evans (1661–1689), William Evans (1667–1682/1697), Robert Tippet (1660–1720), and Priamus Williams (1677) (Oswald 1975); the Priamus Williams pipe is the latest dated contemporary artifact from the site. The authors were unable to examine the Robert Tippet and Priamus Williams pipes; however they are described and illustrated by Buchanan and Heite (1971: 44–45). In addition to the English white clay pipes, there were also several Dutch examples, though none had makers' marks; the Dutch fragments were identified based on decorative motifs. The locally made pipes comprised both handmade and mold-made examples that could, in several cases, be attributed to previously recognized makers or similar types in the region.

There were 623 measurable imported pipe stems used to calculate a mean occupation date

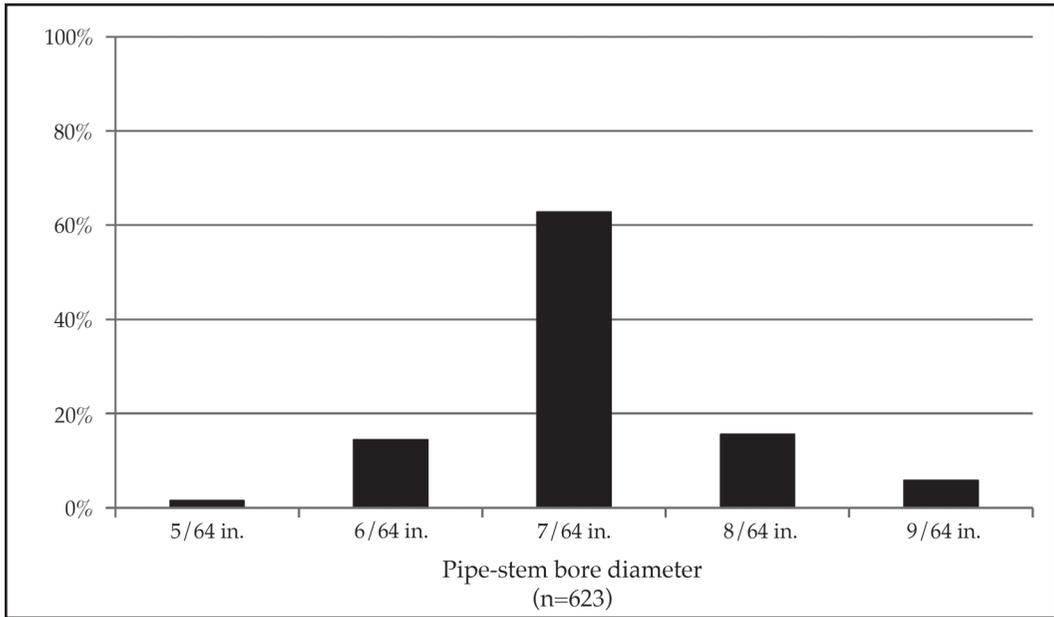


Figure 4. Pipe-stem bore diameter distribution for entire assemblage. (Figure by Lauren McMillan, 2013.)

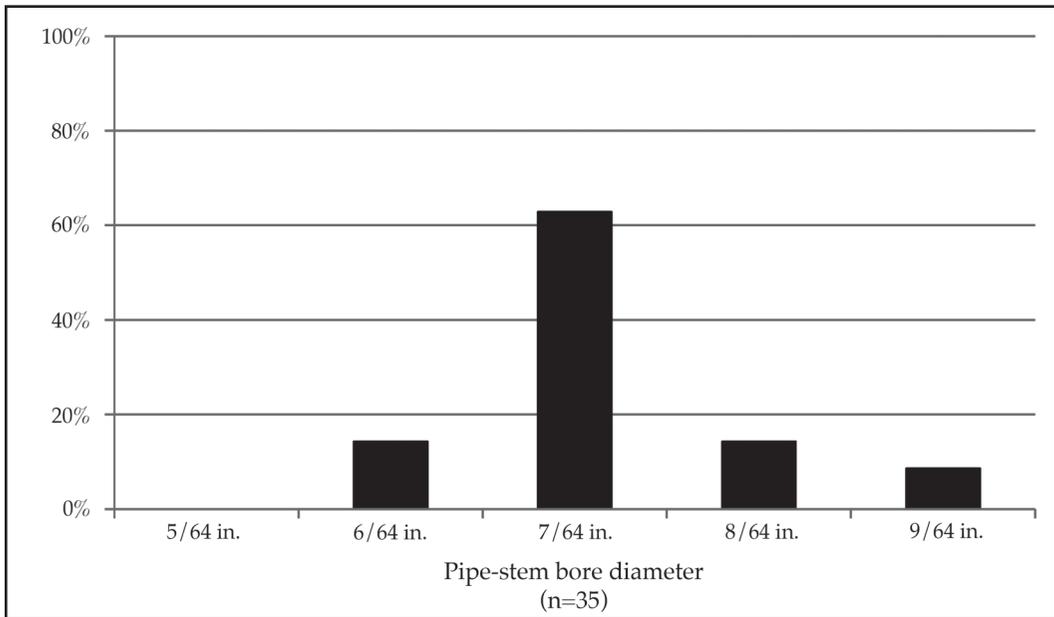


Figure 5. Pipe-stem bore diameter distribution for the occupation features. (Figure by Lauren McMillan, 2013.)

and to create a Harrington (1954) histogram for the entire site. The pipe stems were measured with drill bits in 1/64 in. increments, and the data were aggregated for both the site as a whole and for the occupation features. Two mean-formula dating techniques were used, the

Binford linear regression formula and Hanson's third formula, the latter used for sites dating from 1650 to 1710 (Binford 1962; Hanson 1968).

The Harrington histogram for the entire assemblage shows that the majority of the bore diameters were 7/64 in., placing the occupation

of the site between 1650 and 1680 (FIG. 4). The Binford formula produced a mean date of 1660, and Hanson's formula produced a date of 1665. The same dating methods were applied to the occupation features, with similar results. The histogram again shows that these features fall within the 1650–1680 date range, with the majority of the bores measuring 7/64 in., but is skewed toward the larger bore diameters (FIG. 5). The Binford formula produced a mean occupation date of 1657, and the Hanson formula yielded a mean of 1662.

A fourth dating technique using tobacco pipes was applied to the entire assemblage. Researchers from the Lost Towns project in Maryland have shown that percentages of local pipes in an assemblage can place a site within a 17th-century date range fairly accurately (Cox et al. 2005). They group sites into three time periods: pre-1660, 1660–1680, and post-1680. Local pipes represent more than 50% of the assemblage at sites dating to before 1660. At sites dating from 1660 to 1680, they make up 9%–25% of the collection. Assemblages from the last group, sites dating after 1680, have 0%–3% local pipes. Based on the temporal divisions proposed by staff of the Lost Towns Project, the Hallowes site can be placed in the

1660–1680 period due to the fact that 14% (n=139) of the total pipe assemblage is comprised of locally made pipes. While this technique has not been widely tested, it does appear to work on several 17th-century sites on the Northern Neck analyzed by the authors (McMillan and Hatch 2013; McMillan and Heath 2013).

The majority of the 139 locally made pipes recovered are undecorated red/brown hand-made pipes; however, there are a few fragments that can be attributed to specific makers active during the middle of the 17th century. Three mold-made belly-bowl, low-heeled pipes with distinctive rouletting along the bowl/stem juncture at the back of the bowl were found at the Hallowes site. They are made of similar buff-colored clay with other inclusions (FIG. 6). Four locally made pipes with the same decoration were found at the Pope's Fort site (1645–ca. 1655) in St Mary's City, Maryland, across the Potomac River, and at least two more were recovered from Nomini Plantation only a few miles from Hallowes (Mitchell 1983: 30; Miller 1991: 82). Based on current reanalysis by the authors, Nomini Plantation dates from 1647 to 1720 (McMillan and Hatch 2013). These rouletted-juncture belly-bowl pipes have been termed the "Ingle's Rebellion"



Figure 6. Locally made pipes of the "Ingle's Rebellion" type. (Courtesy of the Virginia Department of Historic Resources; Photo by Lauren McMillan, 2011.)



Figure 7. Locally made pipes of the “Bookbinder” type. (Courtesy of the Virginia Department of Historic Resources; Photo by Lauren McMillan, 2011.)

type, based on the fact that this type has only been found on sites associated with men who were involved in the 1645 uprising in Maryland (McMillan 2012). One of these pipes provides the ca. 1645 TPQ for the construction of John Hallowes’s fortified house, as it is the only datable historical artifact recovered from the fill of the structural postholes.

Seven elaborately decorated pipes that have been identified as the products of a distinct school, named “Bookbinder” by Taft Kiser (FIG. 7), were recovered. These pipes were produced in the 1640s somewhere near the Chesapeake site (44VB48) in Virginia Beach, but have also been recovered on sites across Virginia and southern Maryland (Luckenbach and Kiser 2006: 165–167).

Additional Artifacts

Other artifacts recovered from the site support the conclusion that the Hallowes site was occupied in the third quarter of the 17th

century. The presence of a significant amount of case-bottle glass, only a small amount of wine-bottle glass, and a single fragment of leaded glass point to the third quarter of the 17th century, since globular wine bottles were not produced until about 1650, and leaded glass was first made around 1674/1676 (Noël Hume 1969: 60; Lanmon 2011: 20, 24–34). A total of 279 fragments of container glass was found at the Hallowes site, representing case bottles, wine bottles, and at least one phial. The majority of the glass appears to be from case bottles, but the condition and small size of many of the fragments made a precise count difficult. A MNV count was undertaken for the container-glass assemblage. Five individual vessels are present, calculated by the presence of unique bases or finishes based on container type. Vessels 1, 2, and 3 are case bottles, which were most widely used prior to the mid-17th century, when globular bottles were introduced (Noël Hume 1969: 62). Vessel 4 is a “globe and

shaft" wine bottle that dates to ca. 1650–1660 (Noël Hume 1961: 1, 1969: 63; Lanmon 2011: 287–288; Museum of London 2011). Vessel 5 is an aqua-colored phial.

The single utensil recovered from the Hallowes site was a copper-alloy spoon bowl with a portion of the stem (FIG. 8). The bowl is of the "Puritan" shape, which places it in the post-1660 period (Noël Hume 1969: 183). There is an impressed mark in the bowl just below the juncture of the bowl and stem, but the details of the mark could not be discerned due to the amount of wear. It is likely that the spoon is latten, an alloy of copper that was often tin plated to give the appearance of silver, but no plating survives (Noël Hume 1969: 180).

The proportions of beef, swine, and wild game in the faunal assemblage at the site can also be used to support this date range (Hatch, McMillan, and Heath 2013; Hatch 2012). Faunal analysts working with collections in the Chesapeake have found that, on average, beef, pork, and wild game account for 45%, 25%, and around 30%, respectively, of the meat diet on sites dating from 1620–1660 (Miller

1984, 1988; Bowen 1996). At Hallowes, beef, pork, and wild game account for 43%, 29%, and 28%, respectively, almost exactly duplicating expected proportions for sites dating prior to 1660. However, it should be noted that a lack of screening at Hallowes may have reduced the percentage of fish and other small wild-animal remains that were recovered. While the use of patterns in faunal remains to date a site is speculative at best, the assemblage from Hallowes certainly supports the earlier dates arrived at by other methods. The use of these Chesapeake faunal patterns at this site is particularly fitting, since they were derived using data from several sites in the St. Mary's City area, where John Hallowes lived from 1634 until 1647, and continued to visit until his death in 1657.

Conclusions

The Hallowes reassessment project has clearly demonstrated the importance of taking a fresh look at old collections. Prior to this analysis the site was interpreted as dating to post-1670 and associated with Bacon's Rebellion (Buchanan and Heite 1971; Neiman



Figure 8. "Puritan" spoon bowl (mark highlighted by a dashed circle.) (Courtesy of the Virginia Department of Historic Resources; Photo by D. Brad Hatch, 2012.)

1978, 1980; Carson et al. 1981; Hodges 1993). This reanalysis has benefited from more than 40 years of research in Chesapeake history and historical archaeology that has allowed us to refine the chronology of the site. In so doing, we have established that John Hallowes built the house in 1647, and that it was occupied by his heirs or their tenants until 1681. These dates support our argument that the fortifications erected by Hallowes at his Westmoreland County home were a reaction to his participation in Ingle's Rebellion in Maryland. Reanalyses of sites such as Hallowes illustrate how even collections recovered using older methods can contribute to the understanding of the past.

While the excavation and recording methods for the site were not ideal by current methodological standards, careful analysis and the construction of an historical context have allowed us formulate new interpretations that are more consistent with the data. The continued opportunity to reanalyze old collections and incorporate them into more current historical narratives has become even more significant in recent years with funding cuts in archaeology. This project has demonstrated that reanalysis is a cost-effective way to do original archaeological research and still make new discoveries about the past.

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Dee DeRoche, Virginia Department of Historic Resources, deserves special thanks for allowing us to bring this collection to Knoxville and hold it until our analysis was complete. Charles Hodges and Bly Straube prepared the original artifact inventory in the 1980s, and we are grateful for its accuracy and completeness. At the University of Tennessee, Crystal Ptacek produced the maps used here. Eleanor Breen helped us to organize and understand the original context sheets and recording system.

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