

“WE HAVE BEEN WITH THE EMPEROR OF PISCATAWAY, AT HIS FORT:”¹ ARCHEOLOGICAL INVESTIGATION OF THE HEATER’S ISLAND SITE (18FR72)

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Abstract

Introduction

In 1970, the Department of Anthropology at the University of Maryland–College Park (UMCP) ran a 10-week “Summer Field School in Historic Sites Archaeology” (ANTH 194 and 294) under the general direction of Robert L. Schuyler, then an assistant professor at the university. The field school examined two Contact period Piscataway Indian sites simultaneously (see below), one of which was the Heater’s Island site (18FR72) in Frederick County, Maryland. The day-to-day fieldwork was directed by J. Ivor Gross, then a graduate student in Anthropology at the university. For various reasons, the excavation results were never analyzed and reported, and Dr. Schuyler took the collection and records from the project with him to the University of Pennsylvania, University Museum, where he curated them for the next 30+ years. The present work is intended to put forward a report on the Heater’s Island site which includes: an occupational history of the Piscataway Indians during the historic period, showing how they came to settle on Heater’s Island, their last village established in Maryland (1699 to ca. 1712); summaries of other known investigations of the site; and the results of the 1970 UMCP excavations.

Heater’s Island (also known as Conoy Island²) is located in the Potomac River just below Point of Rocks, Maryland (see Figure [1](#)). At the time of the UMCP field school, the island was owned by retired Navy Capt. Kenneth L. and Mrs. Nancy R. Jeffery, who lived on a cattle farm across the Potomac in Loudoun County, Virginia. A house and associated farm structures still exist on the island, but apparently were not occupied in 1970; nonetheless, the island was under cultivation (corn) at the time of the UMCP investigation. In 1972, perhaps following the devastation of Tropical Storm Agnes, the Jefferys sold the island to the Maryland Department of Natural Resources, a state agency that maintains the island as a Wildlife Management Area.

In 2004, as part of a cultural resources assessment program for state-owned properties, the Maryland Historical Trust’s Office of Archeology embarked on a study of state lands along the Potomac, including Heater’s Island. Given this opportunity, the author contacted Dr. Schuyler in an attempt to have the 1970 collection conveyed to the state of Maryland. Dr. Schuyler graciously agreed to the transfer, and in August 2004 the author and Maureen Kavanagh drove to Philadelphia and retrieved all of the Heater’s Island materials. Included were four loosely filled medium-sized (1.5 cu. ft.) boxes of artifacts and a larger (2.0 cu. ft.) box containing correspondence, original field records, daily field notes (Gross 1970), maps, color slides and photographs, some preliminary artifact catalogs, and archival research material collected by Dr. Schuyler and his students. All of these materials are presently curated at the Maryland Historical Trust’s Maryland Archaeological Conservation Laboratory at Jefferson Patterson Park and Museum in Calvert County, Maryland.

The Piscataways in the Colonial Period

Early Historical Accounts

The earliest record of interaction between European explorers and the Native inhabitants of what is now Maryland stems from Captain John Smith’s 1608 voyage up the Potomac River. Smith (Arber 1910) describes the inhabitants of Maryland’s Western Shore in general terms, and notes the locations of their villages and settlements on a map of his travels (Smith 1608). Of particular note is the presence of a major village—*Moyaons*—in the heart of what would soon be recognized as Piscataway country. This village, on the Potomac River just below the mouth of Piscataway Creek, most likely served as the residence of the Piscataway chief (or “Emperor” as the English soon would say), but Smith provides no

written documentation of the village. The location of Moyaons has yet to be discerned archeologically³. Nonetheless, by 1634 the Piscataways had moved their main village to the south shore of Piscataway Creek, near its head (see Figure [2](#) for the Piscataways' primary village relocations during the 17th century). It was here in the spring of 1634 that Governor Leonard Calvert—heeding the advice “not to settle himselfe, till he spoake with the emperor of Pascatoway” (White 1634a:18)—met with the Emperor, Wannis (see Table [1](#) for a list of known Piscataway Emperors; see Table [2](#) for a list of major events relating to the Piscataways). Wannis’ response to Calvert is recorded—depending on the translation of a transcription of the original Latin manuscript—as either tepid (“he would not bid him goe, neither would hee bid him stay, but that he might use his owne discretion” [Hall 1910:72]) or as freewheeling (“he gave us permission to dwell wherever we pleased in his dominions” [White 1634b:34]). White (1634a:19) describes Piscataway as “the seat of the Emperour, where 500 bowmen came to meet them [Calvert and his ship] at the water side,” and it would remain the principal Piscataway village for nearly the next half century. It was also here that Fr. Andrew White ministered to the Piscataways, eventually baptizing the Emperor Kittamaquund in 1640.

During the next four decades, the Piscataways and related groups faced increased pressures from “foreign” or “strange” Indians—first from the Senecas, and later from both the Senecas and the Susquehannocks. Shifting Native allegiances and constant inter-tribal raiding made for a very unsettled existence on the Western Shore (Ferguson and Ferguson 1960:31-41). In 1678, the Piscataways revealed their dependence on the English for defensive supplies:

The Pascattoway Indians then move his L^{spp}: for a Supply of Powd^r and Shott setting forth the great want they are in and Daily expecting their Enemy to fall upon them and that unless his L^{spp} : will be pleased to furnish them for their Defence they must be forced to fall to makeing of Bows and arrows wherein for want of practice they have not that experience as formerly and soe consequently must inevitably Suffer for want of better provisions to secure themselves.

(Archives of Maryland 1896:242)

In February 1680, the English gave the Piscataway “thirty pounds of powder and Sixty pounds of Shott for their Defence together with twenty barrils of Corne for their Sustenance,” and the Council of Maryland advised the Choptico, Mattawoman, and Nanjemoy Indians to “enfort themselves [with the Piscataways] at the Pascattoway ffort” (Archives of Maryland 1896:330). By June of 1680, even the fort at Piscataway failed to provide refuge, and the Council of Maryland gave permission for the Piscataways to “remoove to Zachaia and there to seate themselves und^r such ffortifications as they shall think fitt to Erect for their Safe guard and Defence” (Archives of Maryland 1896:304). Any sense of security at the Zekiah fort was short-lived, for in August 1681 the Susquehannocks and Senecas laid siege to the Piscataways in their new home. To quell these hostilities, the Maryland Assembly sent Colonel Henry Coursey to New York in 1682 to negotiate a treaty with the Iroquois, including the Seneca (Archives of Maryland 1898:98-120). The 1682 treaty and a 1685 amendment effectively ended the Indian wars in Maryland (Stephenson et al. 1963:22) and presumably secured a safe existence for the Piscataways.

Despite this new-found security from the northern Indians, the Piscataways were increasingly facing a new challenge—the English themselves. The Piscataways’ presence on the frontier as a buffer between the English and outside Indian groups was clearly welcomed by the English, but at the same time the pace of colonial expansion on the Western Shore was certain to cause friction between the two groups. There are numerous accounts of such tension on both sides, such as English complaints of Indians killing their hogs, and Piscataway complaints of colonists’ cows eating Indian corn (Archives of Maryland 1884:15). Piscataway accounts of “land-grabs” were increasingly common (Archives of Maryland 1899:521). And then there was the colonists’ predilection to blame any Indian atrocity or transgression on the local Piscataways, as demonstrated below.

A Brief Refuge in Virginia

As late as March or April 1697, the Piscataways presumably still resided at Zekiah Fort⁴. On March 20, 1697, a James Stoddert of Prince Georges County went “to the ffort” to see the Emperor of Piscataway, seeking to obtain a “silke grasse net” (Archives of Maryland 1899:522). At roughly the same

time, Sir Thomas Lawrence, in a March 25, 1697 letter, reported to the Earl of Bridgewater on the size of the Piscataway nation in Maryland, presumably largely at Zekiah Fort. Recounting which “Nations of Indians reside within the province of Maryland and are under Articles of Peace with the said Government,” Lawrence’s letter states

The Emperor of Piscattaway under whose subjection is contained Chapticoe and Mattawoman Indians, all which joined by other are said not to be above 80 or 90 in number.

(Archives of Maryland 1905:256)

Subsequently, James Stoddert reported that on April 3, 1697 one of his slaves was attacked by “about Tenn Indians naked not painted” (Archives of Maryland 1899:522-523). The slave died four days later. The impression from this account is that neither Stoddert nor his slave recognized the attackers, and that they were “strange” or “foreign” Indians (possibly Seneca) rather than Piscataways. (Presumably the Piscataways would have been familiar to Stoddert, as several “families of the Piscattoway Indians had their Cabins at [his] house” until February 1697 [Archives of Maryland 1899:522].) Nonetheless, it is clear that the Piscataways feared retribution, and it is likely that this incident precipitated the Piscataways’ sudden move to Virginia prior to June 1697. On June 1, 1697, Major William Barton submitted the following written account, recounting that, pursuant to orders of the Governor and the Council of Maryland, he went

into Virg^a where the Emperor of piscattoway & the Indians vnder his Comand doe now resort being betwixt the two first mountaines above the head of occoquam river lying neare sixty or seaventy miles beyond the Inhabitants where they have made a fort & planted a Corne feild.

(Archives of Maryland 1899:520)

Barton further recounts that, in response to his query as to why the Piscataways had abandoned their fort at Zekiah, the Emperor of Piscataway answered that his people sought refuge from the English—and in particular from accusations by Col. John Addison regarding the murder of Stoddert’s slave. Additionally, the Emperor complained that “several people bought their lands over their heads,” resulting in the destruction of Indian cornfields prior to harvest (Archives of Maryland 1899:521). Barton concludes, “[a]s to their coming back [to Maryland] they vtterly refuse” (Archives of Maryland 1899:521). Apparently, the Piscataways had “strange notions in their heads that the Marylanders wanted to draw them back only to destroy and kill them, and that if they did any mischief in Maryland, they should be protected In Virginia as long as they lived there” (Archives of Maryland 1903:233).

The Piscatways’ foothold on their Virginia refuge (believed to be located in the Little River–Goose Creek–Bull Run area of Loudoun and/or Fauquier Counties⁵) must have felt precarious. On the one hand, the Maryland Governor Francis Nicholson was all but demanding the Piscataways return to Maryland. He had already sent William Barton to meet with the Emperor, and apparently ordered a second⁶ (June 8, 1697) delegation—led by Thomas Tench and the accusatory John Addison—to “treat with the Piscattoway Indians at the mountains” and secure their return to Maryland (Archives of Maryland 1903:143-146). On the other hand, Virginia Governor Edmund Andros complained to the House of Burgesses on October 23, 1697,

Soon after your adjournment, the Piscataway Indians living on the Northside of Potomack River, in Maryland, came over to settle, (on this side) & notwithstanding my reiterate Directions & Orders to the Chief Officers in Stafford County, have not been prevailed with to returne to Maryland, but remaine back in the Woods beyond the little mountains.

(Palmer 1875:55)

A year later (November 5, 1698), residents of Stafford County were entreating (now Virginia) Governor Francis Nicholson⁷ to demand that “Esq^r Tom”⁸ (a Pamunkey Indian accused of murdering William Wigginton’s wife and three children in Stafford County [Archives of Maryland 1903:227]) be turned over to them by the Emperor of Piscataway, who they blamed for harboring the criminal (Palmer 1875:60).

The Piscataways Relocate to Heater’s Island

By early 1699, we find the first indications that the Piscataways have moved back to Maryland. A 1699 map of the Blue Ridge region by Cadwalader Jones (in Harrison 1924) contains the notation “Piscataway Indians now in the S. forke of Potomack” in the location of Heater’s Island (see Figure 3). On March 28, 1699, Virginia Governor Francis Nicholson—still concerned about the general Indian threat to the Virginia frontier—instucts the Stafford County Militia “to send one or more meffengers to the said Emperour, and command him...that he and some of his great men make their personall appearance before me in the General Afsembly the first day of May next...” (Palmer 1875:62). On April 12, 1699, the Stafford County Militia (led by Lt. Col. George Mason) responded to Nicholson that they “have this day pitched upon two funstantial p’fons, Inhabitance of this County, to witt: M^r Giles Vandicastle and M^r Burr Harrifon, to goe to the Indian (called) Empe^r of Pascattaway, to deliver to him...yo^r Excellencys Commands” (Palmer 1875:63). Included in Nicholson’s original instructions was the requirement that “an exact Journal of their Journey” be kept (this was a military reconnaissance mission as much as a delegation to deliver the governor’s summons). As a result, we have an uncommonly detailed report of the journey and description of Heater’s Island:

[April 21, 1699]

Stafford fs.

In obedience of his Excellencys Command and an order of this Corte, bearing date the 12th day of this Instance, Aprill, We, The subfcribers, have beene with the Empeour of Piscattaway, att his forte, and did then Command him, in his Maj^{ties} name, to meet his Excellency in a Generall Affembly of this his Maj^{ties} most Ancient Colloney and Dominion of Virginia, the ffirst of May next, or two or three dayes before, with fume of his great men. As soon as we had delivered his Excellency’s Comands, the Emperor summons all his Indians that was then at the forte—being in all about twenty men. After consultation of almost two oures, they told us were very Buffey and could not poffibly come or goe downe, butt if his Excellency would be please to come to him, fume of his great men should be glad to see him, and then his Ex^{lly} might speake whatt he hath to say to him, & if his Excellency could nott come himsealfe, then to send sume of his great men, ffor he defired nothing butt peace.

They live on an Island in the middle of the Potomack River, its aboutt a mile long or fumething Better, and aboute a quarter of a mile Wide in the Broaddis place. The forte ftands att y^e upper End of the Island, butt nott quite ffinnished, & theire the Ifland is a Lower Land, and Little or noe Bank; against the upper End of the Ifland two small Ifland, the one on Marriland side, the other on this side, which is of about fore acres of Land, & within 200 yards of the fforte, the other fmaller and fumthing nearer, both ffirme land. & from the maine to the fforte is aboute foure hundred yards att Leaste—nott ffordable Excep in a very dry time; the fforte is about fifty or fixty yards square, and theire is Eightene Cabbins in the fforte and nine Cabbins without the forte that we Could fee. As for Provitons they have Corne, they have Enuf and to spare. We faw noe straing Indians, but the Empero^r says that the Genekers [Seneca] Lives with them when they att home; alfo addes that he had maid peace with all y^e Indians Except the ffrench Indians; and now the ffrench have a minde to Lye still themfelves; they have hired theire Indians to doe mischief. The Diftance from the inhabitanee [Vandercastle’s home?] is about seventy miles, as we conceave by our Journeys. The 16th of this Instance Aprill, we fett out from the Inhabitanee, and ffound a good Track ffor five miles, all the rest of the daye’s Jorney very Grubby and hilly, Except for sum fmall patches, butt very well for horse, tho nott too good for cartes, and butt one Runn of any danger in a ffresh, and then very bad; that night lay att the sugar land, which Judge to be fforty miles. The 17th day we sett y^e River by a small Compafse, and found itt lay up N. W. B. N., and afterwards fett itt ffoure times, and always ffound itt neere the same Corse. We generally kept about one mile from the River, and a bout seven or Eight miles above the sugar land [near present-day Herndon, Virginia], we came to a broad Branch of a bout fifty or sixty yards wide, a stll or fmall streeme, itt tooke oure horses up to the Bellys, very good going in and out; about six miles ffarther came to another greate branch of about sixty or fevnty yeards wide, with a ftrong ftreeme, making ffall with large stones that caused oure horfes fume times to be up to theire Bellyes, and fume times nott above their Knees; Soe we Conceave if a ffreish, then nott ffordable, thence in a small Track to a smaller Runn, a bout six miles, Indiferent

very, and soe held on till we came within six or feven miles of the forte or Island, and then very Grubby, and greate stones ftanding Above the ground Like heavy cocks—they hold for three or ffoure miles; and then shorte Riddges with small Runns, until we came to y^e forte or Island. As for the number of Indeens, there was att the fforte about twenty men & aboute twenty women and about Thirty Children, & we mett fore. We understand theire is in the Inhabitance a bout fixteene. They informed us there was fume outt a hunting, butt we Judge by their Cabbins theire cannot be above Eighty or ninety bowmen in all. This is all we Can Reporte, who subscribes ourfelves

Yo^r Ex^{ll}y Most Dutifull Servants,
GILES VANDERASTEAL,
BUR HARISON
(Palmer 1875:63-65)

Six months later in November 1699, again at the behest of Nicholson, George Mason reports, “I sent two men to the ffort on Potomack, where the Emperer and his Indians are seated, with order to make the best Inquirey they could” (Palmer 1875:68). The result of this action is the following report by David Straughan and Giles Tilltet (Tillett):

[November 3, 1699]

A JOURNALL OF OUR PROCEEDING.

In Obedience to Command, we, the subfcribers, Sett oute of the Inhabitance towards the Indian fforte, and that night we lay at the Sugger land. On the ffourth day about two o’clock, we gott to the River side oppisett to the fforte, & their holler’d & Immediately they anfwered, ; they sem’d to us to be in a great ffright; At laft one of the great men & one Sinniker (Seneca) came over to us; they asked if they was noe more of us; wee told them noe; wee asked them for a Canoe; they told us they had none, soe wee Ventred to Ride into the Island, and passed over very well; the Emperor and his Indians rece’ved us very Kindly, & carred us into the ffort; there is of them about Thirty men; their ffort is slender: they pretended to be in great ffeare of Strange Indians; Wee asked them what Indians; they told us Wittowees; wee asked them if they had seene any latly, & they told us some of their Women had seene Tenn; that Kild one of theire Indians and [text missing/indecipherable] another’s head: Wee asked the Emperor if any of his Indians had beene any great march this summer; he told us noe; only he himselfe & some of his men had beene oute towards the great Mountains twice to see for the Strange Indians, but could not see any of them; he told us the Suscannahes had taken two of them & brought them to his ffort; he asked what nation they weare, and they told him Wittowees; he told us his men had beene out, and met with two of them & Kild one of them, cut offe his head & brought it to him; We asked him if he was not afraid to live theire; he told us yes, but could not helpe it; he said he could willing come to live amonst the English againe, but that he was afearde the ftrange Indians would follow them and doe mischief amongst the English, and he should be blamed for it, soe he muft content himselfe to live theire; for he says it is the ffrench that setts them to worke, And bids them if they meete with a hogg, Kill him; if a Dog, Kill him; if an Indian, Kill him; if an Englishman, Kill him; soe he says that if he lives ever so farr he must be contented. He presents his services to the Gove^{mr}, and thanks him for his Kindness to send up men to see him to know how he did; soe wee stayd aboute three houres and looked over the river, and came about six miles and lay theire that night. On the ffifth of this Instant we came to the head of Great Hunting Creek, & lay theire that night; and on the sixth of this Instant, wee came to M^r Hawley’s, & theire wee mett with Capt^t Collfon Exercifeing his men. This is the true state of the afaire taken up by us.

DAVID STRAUGHAN,
GILES TILLTET
(Palmer 1875:67)

The Emperor’s premonition that the Piscataways could be blamed for the transgressions of other, “strange Indians” was borne out a scant seven months later. On June 18, 1700, George Mason wrote to

Virginia Governor Nicholson informing him of a series of brutal murders on the Thomas Barton plantation in Stafford County:

On Sunday y^e 16th, about 3 of y^e clock in y^e afternoon came about 20 or 30 Indians to Thomas Barton, about 20 miles above my house. The man & his wife & brother being Abroad, & left his 3 Children & an Orphant Boy at home, & had gott a man & his wife & 3 Children from a Plantation of mine, about 2 miles from him, to stat to look after his houfe untell they came home. The Indians fell upon them & Killed Barton's 3 Children, ye man & his wife & his 3 Children. The Orphant Boy Run Away, he being out at Play, blessed be God, Gott to a nabor's houfe & is safe....

(Palmer 1875:69)

Clearly the Piscataways were suspects in the murders, and the safety of their outpost on Heater's Island was already uncertain. Maryland Governor Nathaniel Blakiston had ordered "Captain Philip Hoskins & Major William Dent to go to the Indians & enquire for the murtherers & their answer to his Excellencys order by which no certainty could be Gathered who had committed that Barbarous act" (Archives of Maryland 1905:101). Blakiston also instructed "that a message be sent to the Emper^r of Piscattoway to require him to come in by the first of October next & bring in the Indians with him & that upon his coming in they give account of his own & the Indian names both Indian & English which are to be enrolled that we may know who are our Friends & who not" (Archives of Maryland 1905:102). The result of the Hoskins and Dent mission follows:

[July 3, 1700, Nanjemy]

Report of an Interview with the Emperor of the Piscataways, in which his replies to certain proposals are given, looking to a peaceable settlement of affairs. He speaks in English as well as in the Indian tongue⁹, and exhibits considerable dignity and intelligence; Insists his people did not commit the late murder and depredations, but suspects the Towittowees; Consents to remove his family and property from his "fort" down to Maryland¹⁰, opposite lower Stafford County, as earnest of his good intentions. This report made by

Phill. Haskins and
W^m Dent, who had been sent to negotiate with the Emperor.
(Palmer 1875:70)

Blakiston apparently took the Piscataways at their word, and provided the following pass for the Emperor to escort his people back "down to Maryland":

Whereas I have Granted to the Emperor of Piscattoway and the Indians under his command that shall by their ready compliance & coming in accept & make themselves Capable of the same several Articles of Peace & Amity with his Majestys good Subjects of this Province in compliance whereunto the said Emperor is come in & gives an account that he believes several others of those Indians are willing & desirous to do the same and that his the said Emperors wife & Children are yet above the Frontiers & that they will not come until he goes to bring them down & in regard of several men that are in Arms both in Virginia & Maryland desired to have Liberty to pass up to the said Fort of Indians above the falls to fetch his said wife and Children down & bring what other Indians are willing to come with him

Leave is therefore given to the said Emperor to go up to the said Fort of Indians above the Falls on the Maryland side & bring his wife Children & Goods with him and all such Indians as are willing to come & Embrace the said Articles in all which he & they shall have safe Conduct & unmolested provided he and they do return by the first of October next ensuing at furthest & at their coming in give an account of their English & Indian names to M^r W^m Hutchison & M^r Jn^o Hawkins or one of them both of those that are come in & shall come by the time aforesaid & the said persons are required to take a true account of what names shall be given in & return the same to the Gov^r & Council of the said Province of Maryland Given under my hand & Seal this 18th day of July 1700

N Blakiston
(Archives of Maryland 1905:102)

Despite these arrangements, the Piscataways were still in the vicinity of Heater's Island (although they may have temporarily abandoned the “fort”) four years later, in late 1704. On September 21, 1704, the Maryland Council ordered “Col [John] Addison Col [Ninian] Beale and Col [James] Smallwood acquaint the Piscattaway Indians that they make choice of an Emperour and present him to his Ex^{cy} at Annapolis to be Confirmed and that at that Time it is Expected the Indians should pay their Tribute and renew their Articles” (Archives of Maryland 1906:67). The men apparently mounted the required expedition in December of that year¹¹:

[A]ccording to his Ex^{ncys} Comand he [Col. Smallwood] took sixteen men and an Indian Interpreter in order to go to the Indians on the Forke of Potomeck. The first night they lay without the Inhabitants, And the snow being upon the Ground they saw no footting untill they came within a mile of the Forte where they heard an Indian cutting. Then they came to an Hutt whence they sent two Indians to go see for the Indians & Acquaint them that the English were come friendly to them & desired to Speake with them, Also sent Robin the Indian to see for the Indians who returned the next morning and told him He had been at one of the Indian Cabbins under the Mountayns but there were few at home the Chiefe of their greate menn being gone out a Bear-hunting. Says He. understands there had been a great Mortality among them, & to the Number of 57 men Women & Children dead, Supposed of the Small pox. So that they had left their Forte, where they have a greate deal of Corne in their Cabbins and all the last Years Corne Standing.

(Archives of Maryland 1906:376-377)

Perhaps due in part to the smallpox decimation, by April 10, 1705, the Emperor had still failed to meet with the Governor, or return his people to their ancestral lands in Southern Maryland, as indicated by the Maryland Council’s record, “the Piscattaway Indians have failed to Come in according to Expectation” (Archives of Maryland 1905:187). This poignant entry is the final reference to the Piscataway Indians in the Archives of Maryland (Ferguson and Ferguson 1960:43).

While the Piscataways may disappear from the official colonial archives, their continued presence on Heater’s Island is documented for nearly another decade. In 1702, German-born Swiss explorer Franz Ludwig Michel (also Franz Louis Michel, Francis-Louis Mitchell) visited several Middle Atlantic colonies, including a long venture into the Shenandoah Valley where he reportedly found silver deposits in the Massanutten area. A map of the upper Potomac drafted by Michel in 1707 depicts a longhouse near Heater’s Island (see Figure [4](#)). In 1708, Michel returned to Europe where he met Baron Christoph von Graffenreid (Figure [5](#)), another Swiss adventurer and entrepreneur. Graffenreid had been planning to establish a Swiss colony of Anabaptists (Mennonites) in North Carolina, but was having trouble finding financial backers. Michel and Graffenreid joined forces—securing funding for both a Mennonite colony in North Carolina (New Bern) and a silver mining colony in the Shenandoah Valley—and set sail for North Carolina in 1710. The New Bern colony seemed doomed from the start. Many of the 600 Anabaptists accompanying Graffenreid died on the voyage to North Carolina, initial provisions were insufficient, and the colony was attacked by the Tuscarora Indians. During this, Michel and Graffenreid had a falling out, leaving Graffenreid to search for the Massanutten silver on his own. So, with the New Bern colony in tatters, in 1712¹² Graffenreid set out and traveled up the Potomac, above the falls, in a desperate search for silver to ward off bankruptcy. It was during this excursion up the Potomac that Graffenreid visited Heater’s Island (which he refers to as Canavest¹³) and the surrounding area:

When we came to a small village called Canavest, a very pleasant and enchanting spot about 40 miles above the falls of the Potomac, we found a troop of savages established there, and in particular a Frenchman from Canada, named Martin Charetier, who had married an Indian woman or savage. He was in great credit among the savages beyond Pennsylvania and Maryland, and at the fine advances of Mr. M. [Michel] had settled himself there, leaving for this his place where he was well established in Pennsylvania. This same Martin Charetier had also made the journey to Senantona [Shenandoah] to look for mines with Mr. M. and contributed a good sum of money to it. This man warned us that the Indians, who were in the vicinity of this mountain of S. where the mines were said to be, were much alarmed by the war which we were having with the Tuscaroras, and told us that not to risk ourselves on so dangerous a journey without necessity. We gave heed to this, postponing the plan for a more secure occasion and time. We made an alliance,

however, with these Indians of Canavest, a very necessary thing, in connection with the mines which he hoped to find there as well as on account of the establishment which we had resolved to make in these parts of our small Bernese colony which we were waiting for. After that we visited those beautiful spots of the country, those enchanted islands in the Potomac River above the falls. And from there, on our return, we ascended a high mountain standing alone in the midst of a vast flat stretch of country, called because of its form Sugar Loaf which means in French pain de sucre, taking with us a surveyor, the above named Martin Charetier, and some savages. From this mountain we saw a great extent of country, a part of Virginia, Maryland, Pennsylvania and Carolina. By use of the compass we made a map, and observed particularly the mountain Senantona where our mines were said to be. We found that this mine was situated beyond Virginia, and not beyond Pennsylvania as the map of it had been given to us.

(Todd 1920:383-384)

The map drawn by Graffenried (1712; Figure 6) includes the notation “Canavest vill. Ind.” at the location of Heater’s Island. In addition, the letter “H” on the Virginia side of the Potomac refers to the “Island of Canavest, elevated country and very good, where the Indians or savages had planted some fine Indian corn. It is upon this island that we had made the design to establish ourselves at the commencement, as being very well situated to carry on trade in Virginia, Maryland and Pennsylvania. For this reason we had had almost all the good land bordering the river surveyed” (Todd 1920:391). Below this spot in Virginia is a grove of trees “K” where Graffenried reports, “Here we had caused to be marked out six thousand (pauses or) acres of choice land, abounding in and full of sugar trees. These trees are very handsome and are as tall as oaks. They grow only on rich soil. When one makes a blow with an ax into the trunk of the tree there comes out a juice. From three or four pots of this juice boiled in a kettle there remains a sweet substance in the bottom and this is sugar. They make little cakes of it. This sugar is a little grayish and has a taste a little different from that of cane, but good. I used it in tea and coffee and found it excellent” (Todd 1920:392). The notation abutting this grove of tree reads (translated from French¹⁴), “There is in Winter such a prodigious number of swans, geese and ducks on this river from Canavest to the Falls that the Indians make a trade of their feathers” (Harrison 1924:100).

The Piscataways Leave Maryland¹⁵

How long beyond 1712 the Piscataways remained on Heater’s Island is unknown, but it is clear that plans to leave the village had been considered for at least a decade. As early as 1701, Conoy (Ganowese) representatives attended a meeting with William Penn in Philadelphia and received permission to settle in Pennsylvania (Kent 1984:72; Archives of Maryland 1904:145-146). In 1705, shortly after the outbreak of smallpox on Heater’s Island, the Piscataways petitioned the Governor of Pennsylvania for permission to settle in Tulpenhocken (Feest 1978:246). By October of that year, at least some Piscataways were in the Conestoga (Lancaster) region of Pennsylvania, where James Logan visited them, presumably at Conejoholo on the east side of the Susquehanna River (Kent 1984:72; Ferguson and Ferguson [1960:43] place them at Conejoholo soon after 1711)¹⁶. From there, around 1718 (Landis 1933:123; Kent 1984:392; Custer 1996:316), the Piscataways moved to Conoy Town, where they remained until at least 1743. In 1743, some Piscataways (from Conoy Town?)¹⁷ settled at Shamokin near the forks of the Susquehanna (Feest 1978:246). In 1749, the Piscataways abandoned Conoy Town to “live among other Nations [including the Nanticoke] at Juniata” (Pennsylvania Archives 1852b:390). By 1754, the Piscataways and Nanticokes from Juniata were at Otsiningo on the Chenango River near Binghamton, New York (Weslager 1948:62). On October 8, 1758, twenty (“Conoyos. Last Night, a Chief, 9 Warriors, 10 Women, in all, 20” [Pennsylvania Archives 1758:558]) or twenty-one (“Kandt, alias Last Night, with Nine Men, Ten Women, One Child.” [Pennsylvania Archives 1852a:176]) Conoy Indians—then considered one nation with the Nanticokes (Pennsylvania Archives 1852a:176)—were among the Six Nations Indians present at a treaty at Easton, Pennsylvania. In September 1776, representatives of the “Connoys” reportedly attended a grand Indian council at Niagara (Stone 1838:3-4). The last appearance of the Piscataways as a tribe was at a 1793 conference¹⁸, where they used a wild turkey as their signature (see Figure 7); there were only 50 members left (Ferguson 1937:44; Ferguson and Ferguson 1960:43).

Archeological Background

1965 Aerial Photographic Interpretation

Ironically, interest in archeological study of the Piscataway Fort on Heater's Island may have been spurred by an unrelated aerial photographic study of the Potomac River. In 1965, Carl Strandberg and Ray Tomlinson of Itek Data Analysis Center in Alexandria, Virginia obtained aerial photographs of the Potomac River from Point of Rocks to Harpers Ferry as part of a water pollution investigation. Strandberg (1962) had earlier noted Indian fish traps along the middle Potomac, and undertook a similar study of this stretch of the upper Potomac, where 36 fish traps were identified. Adjacent to, or in the immediate vicinity of, Heater's Island, Strandberg and Tomlinson (1967:12, 19) identified three presumed colonial and two presumed Indian fish traps; the latter were both on the north side of the island (reportedly, Arthur Nelson, one of the first white settlers in the region, observed a fish weir at this location in 1724 [Strandberg 1962:478]). In a stereo pair of photographs used to depict one of the traps, the upstream end of Heater's Island is clearly shown (Strandberg and Tomlinson 1967:Fig. 3). The accompanying caption¹⁹ notes that traces of a probable Indian village can be seen on Heater's Island, and that stone artifacts and bits of pottery were found during a 1965 field trip. This information piqued the interest of the George Washington University Anthropology Club²⁰ (Snyder 1967, personal communication 2005) and instigated the first archeological testing known on the island.

1967 GWU Anthropology Club Investigation

Sometime between May and October of 1967, 10-15 members of the George Washington University Anthropology Club spent several Saturdays carrying out preliminary testing on Heater's Island. The group was led by Joseph J. Snyder, then an anthropology student and club vice president under the general guidance of faculty advisor Robert L. Humphrey. It is unclear how much time was actually spent working on the island, but it is clear that the testing was very ephemeral and findings were meager (Snyder, personal communication 2005; Clopton 1967). Artifacts²¹ (Snyder 1967:157) were limited to shell- and grit-tempered cord-marked aboriginal pottery, glazed English pottery, possible colonial glass, black and white glass trade beads ($\frac{1}{16}$ to $\frac{1}{4}$ inch diameter), and European white clay tobacco pipe fragments (with stem bore diameters of $\frac{5}{64}$ to $\frac{6}{64}$ inch). Also found was a small 3-foot diameter hearth and two small midden areas which yielded remains of turtle, deer, bear, turkey, mussel, marmot, and fish. Two possible postmolds (two inches across, 16 inches apart) were noted in a newspaper article on the project (Clopton 1967). At the time of this work, the field was planted in corn, which hampered the effort somewhat. It was anticipated that the corn would be harvested in September, and that work in the fall of 1967 would then progress unhindered; however, the expected fall work never came to fruition.

1970 UMCP Field School Investigation

Nearly three years would pass before Heater's Island again drew archeological interest²². In 1970, Robert L. Schuyler was an assistant professor in the newly created Department of Anthropology (carved from the former joint Department of Sociology and Anthropology) at the University of Maryland–College Park. Schuyler's interests lay in the “new subfield of historical archaeology” and his prospectus for the 1970 UMCP field school indicates that only four other field schools in the United States offered a combination of Indian and historic archeology (Schuyler 1969:5). In this vein, the 1970 summer field school focused on the Piscataway Indians of Maryland, and especially their Contact period forts. The 1970 field school actually ran two projects simultaneously. In Prince Georges County, a survey project was undertaken to continue Alice Ferguson's (Ferguson and Stewart 1940) search for the Piscataway Fort on the John Claggett farm along Piscataway Creek. Like Ferguson before them, the 1970 UMCP crew failed to find evidence of the fort itself, but—in an extraordinary coincidence reminiscent of Ferguson's earlier outcome—they discovered and partially excavated an ossuary; excavation of this feature was completed during the 1971 field school (Curry 1999:35-37).

The remainder of the field school was assigned to excavate at the site of the Piscataways' fort on Heater's Island²³. The Heater's Island work was supervised by J. Ivor Gross (see "Dedication"), a graduate student at the University of Maryland. Prior to the fieldwork, Schuyler commissioned a low-level aerial photographic survey of the island²⁴. Two days of preliminary testing were accomplished on March 15 and March 17, 1970. The field school proper was scheduled to run from June 23 through August 30, 1970; fieldwork was carried out Monday through Thursday, and Fridays were generally dedicated to lab work. The workday ran from 7:00 a.m. to 2:30 p.m., except for the first week when it ran from 8:30 a.m. to 3:30 p.m.

The island's owner, Capt. Jeffery, permitted the excavations, but did not allow the students to stay on the island. This necessitated daily trips to the site, which in itself proved an adventure. Early on, using a boat with a 7HP motor, the crew would take the boat "right up to the head of the island and stepped out of the woods right into the grid" (Gross 1970). Later, as the river level dropped—and after ruining the boat's motor while trying to cross the shallow ford to the island—they boated to the island end of the ford and walked up to the site from there (Figure [8](#)). On one occasion (July 31), following a night of heavy rain, they were able to boat all the way to the site itself due to the rise in river level. Four days later, however, they capsized the boat, losing some lunches, thermoses, and shoes, and causing a propeller gash to one student's forehead (four stitches at Leesburg Hospital, \$15.00). A week later, the river level had dropped sufficiently to attempt to drive across the ford in their field truck. They marked the river bottom using stakes (the deepest parts appeared to be knee-deep), and drove to the island the next three days. On August 14, they actually drove all the way to the site by "crashing through the heavy growth on the edge of the field" (Gross 1970). Unfortunately, later that afternoon on the return trip across the river, the truck hit a deep spot and—with water pouring in the doors—almost got stuck on the ford; river-crossing by truck was thereafter suspended. In addition to the travails of the "daily commute," the crew was also faced with a severe heat spell in late July/early August which hampered excavation through fatigue and the baking of subsoil to the hardness of cement, and with occasional heavy rains which flooded excavation trenches and made careful excavation impossible until the soil dried out. Nonetheless, the field school was brought to a successful conclusion, and backfilling was completed on August 26, 1970.

During and immediately following the 1970 field school, some preliminary laboratory processing of the artifacts was carried out. But by late 1970, Schuyler had left the University of Maryland, and Gross was soon to join Catholic University's multi-year investigation of the Flint Run Paleoindian Complex in the Shenandoah Valley. As a result, the Heater's Island collection languished for the next 35 years.

Archeological Results

The preliminary testing carried out in March 1970 consisted of seven 5-foot by 5-foot test units scattered over the site²⁵ (see Figure [9](#)). The excavations undertaken later that summer were comprised of 113 5-foot by 5-foot units; these were concentrated in two large block excavation areas, with the remainder of the units scattered across the site (see Figure [9](#)). Excavation units were designated by the coordinate of their northeast corner and, because the grid's 0,0 point was situated amid the excavations, all cardinal directions are employed in the square designation system. In addition, all seven test pits, two latrine pits²⁶, and all excavation units were assigned a laboratory number used to catalog the artifacts recovered (see Figure [9](#)). All excavated soils (except from the latrine pits) were screened through ¼-inch mesh. A substantial portion of the artifacts are cataloged as "general surface finds" (catalog "#1") and resulted from random collection (apparently a popular lunch-time activity; Robert Wall, personal communication, 2005). Excavation depths varied between 9 and 18 inches below surface (averaging 12-13 inches), encompassing a plowzone, a mottled transition zone, and subsoil. The subsoil contained Contact and pre-Contact period features and evidence of pre-Contact occupations on the island; the latter were not completely excavated and the vertical extent of these cultural levels is unknown.

Field records from the excavations include excavation unit forms and maps²⁷, postmold analysis forms, color slides and black-and-white photographic prints, and Ivor Gross's daily field notes and sketch maps (see Figure [10](#)).

Features

Seventeen “features” were designated during the 1970 excavations (Figure [11](#)). In many cases it is unclear what differentiated “features” from other obvious soil anomalies, as numerous “pit” and “trench” elements are noted in the field records but not assigned a feature number. Likewise, a human burial (see below) was also found, but not given a feature designation. Regardless, documentation for the features is uniformly poor, and only minimal information can be garnered for each, as summarized below.

Feature 1. Exposed within the area from S0-20 and W25-40 was a 12-inch deep, slightly trapezoidal trench (see Figures [12](#) and [13](#)). The exposed portion of the feature measures approximately 16-17 feet by 6-10 feet; the northern extent of the feature is unknown. The width of the trench varied from 10 to 36 inches, and “a good deal of artifactual material was recovered along with bone and charcoal” (Gross 1970:feature field notes). Although the artifacts recovered from the features are not distinguished from those recovered the surrounding unit excavation, Feature 1 artifacts mentioned in the field notes include flakes, bone, glass beads, pieces of copper, shell, pottery, pipe stems, and an iron knife. Faunal remains from the feature include whitetail deer, bear, pig, dog (including one butchered tibia), slider turtle, eastern box turtle, eastern mole, and mollusc as well as unidentified mammal, turtle, and bird. It is clear from the field notes that Gross considered Feature 1 to be a component of the “stockade,” and Schuyler (personal communication, 2004) speculates that it may be either “a bastion in the palisade wall” or part of a small building. An “intensive postmold analysis” carried out in the 12 units encompassing the feature revealed “only one decent postmold” (Gross 1970:feature field notes).

Feature 2. Located a few feet to the west of Feature 1, Feature 2 was an apparent trash pit (Figure [14](#)) in 5S40W that contained “a mass of bone” (Gross 1970:feature field notes) and a concentration of glass seed beads (red, green, black, white, and blue) in association with a copper hawk’s bell (see Figures [15](#) and [16](#)). Also recovered from the 3 by 2½' pit were rusted metal, ceramics, a small potsherd, glass, kaolin pipe fragments, and an “Indian made gunflint.” Faunal remains include whitetail deer, dog and/or wolf, opossum, and eastern box turtle as well as unidentified mammal, turtle, and bird; a bear’s tooth and a deer skull mentioned in Gross’s (1970:notes for 7/27/70 and 8/6/70) field notes were not found in the surviving faunal collection. Excavation of the feature attempted to leave as many beads as possible in situ so as to discern any pattern in arrangement or color (Gross 1970:notes for 7/27/70). Despite these attempts, “there was no perceptible pattern to them, and we have recovered over 100 [seed beads] from an area the size of your hand” (Gross 1970:notes for 8/7/70).

The concentrated nature of the glass seed beads is suggestive of embroidery decoration on clothing or perhaps some type of pouch. With regard to the latter, the associated copper hawk’s bell and perhaps the bear’s tooth evoke images of some type of charm or “medicine pouch,” but this is merely speculation.

Feature 3. Gross’s (1970) feature notes summarize Feature 3 as follows: “A complex of pits—the feature is in 30’N,115’E and 120’E. It is divided into 3 sections, a, b, & c. Sections a and b are probably of the same nature as Feature #1 in that they are narrow pits or trenches—as the area excavated is only 5' wide, no estimate of their extent can be made. a & b run NE-SW. Section c is a small circular pit in 115’N,120’E.” Existing maps of the feature seems to indicate a series of intersecting pits; no photographs were taken. The only mention of artifacts is on the feature record sheet: “a few small sherds; a lot of white quartz chippage.” From the plowzone above this features, Gross (1970:notes for 8/6/70) observes that the two squares “contain much less of everything as compared to the other areas so far excavated, except: – pottery fragments and white quartz chippage. I think these may [be] the focus of an earlier Woodland site in this direction (east).”

Feature 4. Feature 4 is described as a small pit in 115N55E. A sketch map and cross-section (filed with postmold forms for that square) show an oval feature 9⁷/₈" by 7½" and 2¼" deep. Gross (1970) adds in his feature notes “no photos—it is on the master plot.” The level report sheet for this unit shows the pit in the northwest quadrant of the square, and notes an in situ yellow-glazed ceramic sherd in the feature. No additional information could be located.

Feature 5. A small (9" by 11") sub-rectangular pit in the northeast quadrant of 115N55E, this feature contained nothing. It was not photographed. No additional information could be located.

Feature 6. An “intense charcoal lens” in the west wall of 115N50E comprised Feature 6. A “good charcoal sample” was taken from the feature, which was plotted on the master diagram, but not photographed (Gross 1970:feature field notes).

Feature 7. This 4' by 3' trash pit was located at the juncture of four squares, 115-112N, 65-70E (Figure [17](#)). Among its contents were a deer mandible, bone, charcoal, a copper or brass clasp, a nail, a gunflint, and a split black glass bead. Although Gross's (1970:feature field notes) field records state that the feature was photographed, mapped in three dimensions, and plotted on the master plot, no cross-sections could be located.

Feature 8. Located in units 125N50E and 125N55E, this feature is described as "a small pit with charcoal and unidentified bone (very little)," and measuring 18" in diameter and 12" deep.

Feature 9. Feature 9 is located about 1 foot to the east of Feature 8, separated by a trench-like feature. It is speculated that the two features may have originally been one, which was bisected by the trench (believed to be a rodent run). Feature 9 measured 15" in diameter and 2½"-3" deep.

Feature 10. A large (3½' by 2½') area of reddish-orange—presumably burnt—soil was encountered in 110-115N60-65E. No artifacts were found in association with the feature, although a soil sample was taken.

Feature 11. Feature 11 is described as a small pit (approximately 1' by 2') that was 8"-12" deep. Located in 95N95E, the pit contained burnt soil, charcoal, faunal material (whitetail deer, unidentified medium mammal, and mollusc), and broken stone. Beneath a boulder that almost filled the pit was found a white clay-like material (Figure [18](#)) that contained burnt bone and a single 1¾" hand-wrought iron nail. All of the white clayey material (which extended from 35"-36" below datum) was collected for analysis.

Feature 12. A small (1' diameter, 1' deep) pit was located in 130N50E. This pit, which contained charcoal flecks throughout, yielded a roughly rectangular piece (2½" by 3½") of copper sheet (see Figure [19](#)).

Feature 13. Located in 0N25W, Feature 13 is described as "a charcoal pit approximately 14" in diameter and 21" deep...associated with a small area of reddish-orange burnt soil."

Feature 14. Feature 14 is located in the southeast corner of 130N50E. Described only as a very shallow pit, it measured about 12" in diameter and 3"-4" deep. The only artifact associated with the feature was a tiny bone splinter.

Feature 15. Located in 115N70E, Feature 15 is described as a small, poorly defined charcoal pit measuring 13" in diameter and 4" deep. It contained charcoal and a small amount of unidentified bird bone.

Feature 16. Also found in 115N70E, this feature measured 20" in diameter and 18" deep. It contained charcoal flecks and a small amount of bone (dog, unidentified medium mammal, and turtle).

Feature 17. This feature, located in 95N90W and 95N85W, is described as an area of charcoal 6" in diameter in association with a reddish-orange burnt area (a possible burned postmold) 4" in diameter. It was "not investigated due to time limitations," nor was it photographed or mapped on the master plot.

Human Burial. In mid-July, Gross (1970:notes for 7/17/70) records "We seem to have turned up a human skull in the southeast corner of 5'S,5'W. As it is in the surface of the transitional layer...12"-13" below the surface it has been damaged by the plow and looks as though the entire face has been removed. At present it is only slightly exposed and none of the rest of the skeleton is evident, nor are pit outlines or other features." Three days later, long bones from the eastern half of the burial were exposed in 5S0W. A large steatite-tempered pottery sherd was found "just east (4"-5") of the long bones in 5'S,0'W, but somewhat below any Piscataway features" (Gross 1970:notes for 7/22/70). Later Gross (1970:notes for 7/27/70) observes that the interment "may have been an upright flexed burial—no cultural materials in association as yet." The next day he elaborates that the burial is "evidently flexed with the knees pointing south and the pelvis to the north—thus I expect the skull is facing south on its right side." Heavy rains in late July slowed excavation of the burial, and apparently the bone was in somewhat poor condition, as Gross (1970:notes for 7/31/70) notes "I think I will get some carbo-wax and use this to treat the bone as soon as it is removed." This is actually the last mention of the burial in Gross's field notes, although a postmold analysis sheet for 5S0W—written and initialed by Gross on August 12, 1970—notes that analysis of two postmolds was done so that the "burial could be worked out." The northernmost of the two postmolds was found to go "through what is probably an arm of the burial." The excavated burial (see Figure [20](#)) was photographed on August 13, and may have been removed the next day²⁸. The mostly-excavated burial was removed in a block (Robert Wall, personal communication, 2005), to be

transported to the physical anthropology laboratory at the University of Maryland to be studied by Dr. Ellis Kerley. No formal burial excavation records or maps of the excavated burial have been found, nor has any report on the physical anthropological analysis. The burial itself was not in the collection transferred by Schuyler (although a human tooth fragment from the plowzone of 15S20W and several adult human bone fragments from 5S0W and 5S5W may represent remains displaced from this feature), and it cannot be found in the laboratories at the University of Maryland²⁹.

Gross's assessment was that the burial dated to the pre-Contact period, based largely on its stratigraphic position below most of the Piscataway-related occupation levels. Furthermore, the postmold noted above that went through the arm of the burial—if that postmold is associated with the Piscataway fort—would seem to argue for the burial being pre-Piscataway. The nearby find of a steatite-tempered sherd might hint at an Early Woodland affiliation, but there is no real evidence of this (such a case would mark the first Early Woodland burial known in Maryland west of the Chesapeake). On the other hand, the apparent total lack of artifacts associated with the burial certainly supports the notion of it dating to an earlier period, almost certainly pre-Contact. [Given the prominent Late Woodland—both Montgomery Complex and Mason Island Complex—presence on the island, this burial most likely dates to that period. Mason Island Complex burials—such as at the Foster White/Jeffery Village site opposite Heater's Island in Virginia—were mostly extended interments with occasional grave goods (Curry 2010), although both extended and flexed burials without grave goods did occur at the Nolands Ferry site just downstream in Maryland at Tuscarora Creek (Peck 1980). The Montgomery Complex is characterized by flexed burials without artifacts (Slattery and Woodward 1992; Dent 2005:40-41).] And finally, the primary nature of the burial suggests the likelihood of a pre-Piscataway context. Throughout the 16th and first half of the 17th centuries, the Piscataway practiced secondary burial in the form of ossuaries (see Curry 1999). As late as the mid-1740s, the Piscataway burials at the cemetery (36LA40) associated with Conoy Town (36LA57) in Pennsylvania were still secondary in nature, consisting of single and multiple bundle burials accompanied by copious trade artifacts (Kent 1984:392-399). The temporal and material culture overlaps between Heater's Island and Conoy Town would suggest that their burials should reflect such similarities (i.e., secondary bundles with Contact period grave accompaniments)—which is not the case with the human burial excavated on Heater's Island.

Postmolds. Fairly early on in the Heater's Island field school, Gross was aware of potential problems in dealing with possible postmolds. His field notes for July 14, 1970 succinctly outline his concerns:

The combination of the following factors make it often quite difficult to decide if something is a postmold or not—

- There is no sharp dividing line between the dark soil in the upper levels and the yellowish brown sand underneath. When moving through the transitional zone between these soil layers there is a strong mottling effect that produces “ghost molds” that disappear after ¼” or so.
- There is some trepidation as to how far down a postmold should be scraped to make sure it is there. This is because I am not sure just how far down posts were actually driven, and how much of the “living floor” has been removed. This means that we will have to verify the existence of each postmold in a separate operation.
- When the sun comes out (and it usually does—in spades) it tends to bake the exposed features into a uniform gray color. This is not only bad for photography but often allows too short a time for one to stare at a clean horizontal profile in an attempt to see the postmolds.

I may set up a reliability index for postmolds, based on the sharpness of their definition and color, but things have not gotten that bad yet.

(Gross 1970:notes for 7/14/70)

A month later, Gross (1970:notes for 8/12/70) was still wrestling with the postmold problem: “It is very difficult to determine the presence of postmolds in this soil as there is much discoloration due to the very dark soil immediately above...Numerous roots and rodent burrows are also a handicap.” The next day, he (Gross 1970:notes for 8/13/70) apparently decided to implement the reliability index he had contemplated back in July: “Tomorrow afternoon I will use the postmolds (if they are postmolds) in 120°N, 175°W to demonstrate the postmold analysis.” Almost immediately, problems arose:

Began the postmold analysis today—we started by using my field notes to locate all postmolds in a square—we discovered a strange thing ?—the postmolds that we located in the early part of the season were, for the most part, invisible, but new ones showed up that are of a fairly uniform color, though the shapes and sizes vary.

The postmolds that are now visible are all dark organic stains—the same as in the pits—whereas in the early part of the season very few such postmolds were evident. Instead they appeared as the same color as the subsoil, but a darker shade.

This may be due to chemical changes in the soil—the recent dry weather—or something like that.

Another important discovery was that most of the postmolds are very shallow (1-2" from where they were discovered). This may make the kind of postmold analysis I had in mind worthless.

(Gross 1970:notes for 8/19/70)

Now, 35 years later, Gross's dismal assessment of the postmold situation at Heater's Island must be accepted as accurate. Misplaced maps (see note #27) and inconsistencies in the mapping that does survive means that none of the possible postmold locations can be reliably ascertained. The shifting postmold picture (i.e., postmolds defined in June versus those relocated in August) adds to the confusion. And the shallow nature of any postmold remnants causes even bona fide postmolds to be questioned. In the end, only around 60 of the nearly 800 possible postmolds identified at the site were considered to be "good" postmolds. An example of this problem is square 0N10W where a series of 11 very dark and distinct apparent postmolds was revealed in mid-July (see Figure [21](#)); when it came time to analyze these postmolds on August 19, none could be relocated. Despite some suggestions of patterning when all of the possible postmolds are considered, no patterning could be discerned among the "good" postmolds.

Artifacts

Stone Projectile Points and Tools. A surprisingly small number of worked lithics were recovered from the Heater's Island site (Table [3](#); Figure [22](#)). These include a number of unfinished or broken bifaces and eleven projectile points that can be classified typologically. Of the latter, one specimen of each of the following types was identified: a Late Archaic (3500-2500 B.C.) Lamoka point base; a Late Archaic (3000-1500 B.C.) Brewerton Corner-Notched point; a Late Archaic/Early Woodland (1500-500 B.C.) Calvert point (also known more broadly as a Shriver Expanded Stem point); an Early Woodland (500 B.C.-A.D. 300) Rossville point; and a late Middle Woodland/early Late Woodland (A.D. 300-950) Jack's Reef Corner-Notched point. In addition, three specimens each were found of two triangular point types: Levanna (very late Middle Woodland/Late Woodland, A.D. 700-1350) and Madison (Late Woodland/Contact, A.D. 800-1600s).

The vast majority, if not all, of these projectile points are associated with occupations that predate the Piscataway fort on Heater's Island. In fact, only the small, triangular Madison points may derive from the Contact occupation. However, even these specimens are slightly larger than the very tiny, finely made triangles usually found on Contact sites, and they may merely date to the latter portions of the Late Woodland period. An additional factor that argues against their association with the Contact fort is their scarcity. Late Woodland villages—even small ones—typically yield hundreds of these triangles from comparably-scaled excavations, and the same would be expected at the Piscataway fort if stone-tipped arrows were in common usage. Instead, it appears that copper/brass arrowpoints (as well as European firearms) may have supplanted stone-tipped arrows at Heater's Island³⁰ (see discussions, below).

The remaining stone tools recovered from Heater's Island include the following: 6 late stage bifaces (4 rhyolite, 1 dark grey chert, 1 cream/tan chert); 3 early stage quartz bifaces; 6 biface fragments (3 quartz, 2 quartzite, 1 rhyolite); 2 quartz point tips; 1 rhyolite drill fragment; 1 quartz scraper; and 1 small spall from a ground greenstone tool (possibly an axe or an adze). None of these are chronologically diagnostic, although it is likely they date to the time spans represented by the projectile points from the site (i.e., pre-Contact).

Debitage. As with the stone tools described above, there is a dearth ofdebitage from the Heater's Island site (see Table [4](#)), with just over 1,000 pieces ($0.4/\text{ft}^2$) recovered. Compare this to the relatively small Late Woodland Winslow site where nearly 43,000 pieces ofdebitage ($22.0/\text{ft}^2$) were recovered (Dent 2005:12, 17), and it is safe to assume that stone technology played a minor role at the fort on Heater's Island (especially since the majority of it is likely to derive from earlier Archaic and Woodland times).

One noteworthy aspect of the stone debitage from this site does stand out, however. There are a number of grey flint (English) and honey flint (French) retouch flakes from the site. Furthermore, it is likely some or all of the light grey chert, dark grey chert, and smoky-to-honey chalcedony flakes listed in Table [4](#) are actually pieces of English or French flint (the small size and extremely thin nature of these retouch flakes make identification difficult). In any event, many of these retouch flakes likely resulted from the maintenance of gunflints. (Anecdotally, many of these retouch flakes—especially the chalcedony flakes—were recovered from the northeast portion of the site [Lots 104, 109-115; see Figure [9](#)], where a concentration of gun-related artifacts is noted; see below.)

Copper/Brass Triangles (Arrowpoints). Thirty-five copper/brass triangles (Figures [23](#) and [24](#)) were recovered from the Heater's Island excavations. Measurable specimens (9 are fragmentary or bent and are not measurable) range in size from 17.2 to 30.0 mm tall (avg. = 25.4 mm), 11.7 to 20.6 mm wide at the base (avg. = 15.6 mm), and 0.6 to 1.3 mm in thickness (avg. = 0.8 mm). Twenty-two of the specimens are perforated by a central hole varying in size from 1.5 to 3.2 mm (avg. = 2.3 mm). The holes appear to have been drilled, although a number of specimens may have been punched. In the case of the latter, the reverse face of the side that was punched exhibits a burred ring of metal around the margins of the hole; this burred ring was later hammered or filed flush with the unpunched face (Figure [23a](#)). The edges of the triangles appear to have been cut or scored and snapped; some may have been cut from the large piece of copper sheet found in Feature 12. The edges are straight, and on some specimens the lateral edges are beveled on one or both faces, possibly as a result of sharpening. Two specimens are bent at the tip. In the first instance (Figure [23b](#)), the top 8 mm (of what is overall estimated to be 30+ mm) of the triangle is bent back as if by impact. The second specimen (Figure [23c](#)), however, is curled back on itself a full 360° , and would have required extraordinary force to have resulted from impact.

Debate over whether copper/brass triangles were used as arrowpoints persists in the face of seemingly incontrovertible evidence. The most often suggested alternate use for drilled triangles is decorative—either strung or sewn onto clothing. While this may have been the case in some instances, their primary use as projectile points is supported by a number of arguments. First, if these triangles were to be suspended as pendants, logic would dictate that their hole be drilled either closer to the base or to the tip, rather than the central drilling which is clearly predominant. Similarly, if these were to be sewn to clothing, the undrilled versions demand explanation other than “unfinished.”

Anecdotal evidence for the use of metal triangles can be found in firsthand 17th century accounts. In 1602, John Brereton, a member of Bartholomew Gosnold's voyage to New England, observed of the Massachusetts Indians, “They haue also great store of Copper, some very redde, and some of a paler colour [brass?...] they head some of their arrows herewith, much like our broad arrow heads, very workmanly made” (Brereton 1602:9). Similarly, in 1637, Captain John Underhill (1638:23) relates that a Dutch merchant ship anchored near Seybrooke Fort in Connecticut was ordered not to trade with the Pequots because the Indians, who were preparing for war, would take items such as brass kettles and fashion them into arrowheads.

But the most compelling evidence for the use of copper/brass triangles as arrowpoints comes from archeological specimens where the points survive in their shafts, which have been preserved by copper salts. At least two dozen hafted specimens—both drilled and undrilled—are known from Susquehannock sites in Pennsylvania (Kent 1984:190-191). Other examples of drilled, hafted copper/brass triangles are known from a number of New York sites, including Croton-on-Hudson (Veit and Bello 2001:48-50), the Green Farm in Boughton Hill (Fowler 1073:25), and various other sites (Beauchamp 1902:47, 50). And as a final proof, Willoughby (1924:6-7) reports a brass triangular arrowpoint embedded in a lumbar vertebra of an Indian skeleton uncovered at Winthrop, Massachusetts in

1888. So, while it is possible that copper/brass triangles may have been used for decorative purposes in some situations, it is clear that their primary function was that of an arrowpoint.

Native Pottery. The majority of aboriginal ceramics at Heater's Island are small, unidentifiable sherds, both in terms of number and overall weight (see Table [5](#), Figure [25](#)); these include sherds where the temper is unidentifiable, sherdlets too small to allow for reliable classification, and crumbs weighing less than half a gram and exhibiting no diagnostic characteristics. In terms of sherds capable of being classified (see Table [6](#)), the Heater's Island assemblage is dominated by Late Woodland wares, especially Shepard and Page, but also with some Keyser ware. [The heavy Late Woodland presence on Heater's Island might be expected, given the major Late Woodland village located on the adjacent Virginia shoreline (Curry 2010).] A noticeable presence of Early Woodland wares—Marcey Creek, Selden Island, and Accokeek—also occurs on the site. All of these, however, clearly pre-date the Piscataway occupation on the island, and the only Native pottery that may date to the Contact period includes a number of Potomac Creek sherds and a presumably related temperless type.³¹

Early Woodland. The earliest pottery on the site appears to be Marcey Creek ware, typically believed to date between 1200 and 800 B.C. (Egloff and Potter 1982:97). This pottery is slab-constructed and tempered with crushed steatite. A single basal sherd from Heater's Island exhibits the ware's typical flat bottom and the beginnings of a straight-sided vessel wall (Figure [26a](#)). Selden Island pottery is also tempered with crushed steatite, is coil-constructed, and—based on data from the Monocacy site—dates slightly later than Marcey Creek (Gardner and McNett 1971:43-45). Two rim sherds from Heater's Island exhibit nicking along the lip, and a third rim sherd appears to have broken along a coil junction (Figures [26b-d](#)). Accokeek ceramics are sand- and/or quartz-tempered, cord-marked, conical vessels dating to between 800 and 300 B.C. (Egloff and Potter 1982:97-99). One large rim sherd from Heater's Island exhibits the deep oblique cord-marking typical of this ware (Figure [26e](#)).

Late Woodland. As mentioned above, Shepard and Page ware are the predominant types found at Heater's Island. Shepard is a quartz- (or granite-) tempered pottery with globular bodies and applied strips added to the rim, and dates to A.D. 1000 to perhaps 1450 (Schmitt 1952; Slattery and Woodward 1992; Curry and Kavanagh 2004). Page ware is similar, with collars or pseudo-collars, but tempered with crushed limestone and dating slightly earlier than Shepard at around A.D. 1100-1300 (Dent 2010:4-5). Complicating the distinction between these two wares is the demonstrated occasional occurrence of both quartz and limestone temper in a single vessel (Wall 2001; Dent 2010:30). If that is the case at Heater's Island, the actual numbers of Shepard sherds are probably lower, and the Page sherds higher, given the prevalence of quartz-tempering. The few rim sherds of these two types from Heater's Island illustrate typical collars and decoration including incised lines and slashes (see Figure [26f](#)), while several body sherds are decorated with fingernail impressions and incised slashes (Figures [27a-b](#)).

Keyser is the third Late Woodland type found at Heater's Island, albeit in greatly reduced numbers. Keyser ware is mussel shell-tempered and post-dates Page ware, probably dating from A.D. 1400 to the eve of Contact (Dent 2009). Two small rim sherds from Heater's Island exhibit notches along the lip (Figure [26g](#)).

Contact. Potomac Creek ware is another quartz- and/or sand-tempered pottery type found on Heater's Island. Varieties include cord-marked and plain, with the latter being later in time; in general, Potomac Creek ware dates from A.D. 1300 into the 17th century (Egloff and Potter 1982:112). Rim areas of the cord-marked variety are often decorated with vertical, horizontal, and geometric designs using single cords, cord-wrapped dowels, and cord-wrapped paddle edges. At Heater's Island, Potomac Creek ware is difficult to discern due to small sherd size and the lack of rim sherds; it largely was defined on its compact sandy paste, overall thinness of sherds, and/or a smooth exterior. The few decorated specimens include a body sherd with incised rectangles, a body sherd with a faint linear design stamped with roughly square impressions, and 3 rim sherds with incised horizontal lines (Figures [26h](#) and [27c-d](#)). A small section of a sandy pasted, pinched clay pottery coil is also present (Figure [27e](#)).

Also found at the site are a number (54) of thin, smooth sherds with minimal or no temper and a clayey texture. These may be a variant of Potomac Creek ware, or a late ware akin to Camden ware (Egloff and Potter 1982:114). In any event, the 149 sherds considered "Potomac Creek/Late" represent the totality of native pottery potentially dating to the Contact period, and which may have been used by the Piscataway inhabitants of the fort.

European Ceramics. European-made ceramics at Heater's Island (Table [7](#); Figure [28](#)) are dominated by coarse red earthenware, but also include significant amounts of refined earthenwares and stonewares. All of these wares comfortably fit in the broad 1675-1725 time frame during which the Piscataways occupied the island. The only chronological misfits are a small number of whiteware sherds which may derive from the same vessel and are almost certainly related to the 19th century farmhouse on the island.

Manganese Mottled. This buff-bodied earthenware with a yellow to brown glaze (see Figure [29](#)) was made in Staffordshire, ca. 1680-1750. At least three vessels are represented at Heater's Island: two basal sherds from tankards or cups and a flat dish with a possible footing.

Staffordshire Slipware. A buff-bodied earthenware with a brown slip, this was manufactured in England ca. 1660-1770. Examples from Heater's Island exhibit all three decorative techniques employed on this ware—combing, trailing, and marbling (see Figure [30](#)).

Tin-glazed Earthenware. This soft-bodied earthenware was produced throughout the 1600s and into the 1770s. The examples from Heater's Island are largely undecorated, with only one shard exhibiting a small dab of blue paint. A single basal sherd (see Figure [31a](#)) likely represents either a drug jar or a galley pot.

Olive Jar. From the Iberian peninsula of Spain, these pinkish-buff to yellow-bodied earthenware vessels were sometimes coated on the interior with a pale green glaze; all of the Heater's Island examples exhibit this trait (see Figure [31b](#)). Originally thought to be used for storage of olives and olive oil (Noël Hume 1969:144), these large vessels containers were used for shipping and storing everything from wine to lead bullets.

Lead-glazed Coarse Red Earthenware. A low-fired, red-pasted earthenware, this ceramic type employs a brown-to-red (and sometimes green) glaze on its interior and/or exterior (see Figure [32](#)). A ubiquitous utilitarian ware, its forms are typically either kitchen-related (food preparation, cooking, or storage) or hygiene-related. Coarse red earthenwares were manufactured both in Europe and by colonial American potters. One sherd from Heater's Island of what appears to be a molded appliquéd piece with a scalloped shell-like motif may represent a decorative element (see Figure [32a](#)).

"Local" Earthenware. A low-fired tan- to pink-pasted earthenware, sometimes glazed, is presumed to have been made by local American potters. The examples from Heater's Island employ a green glaze either on the interior or on both the interior and exterior; one sherd is unglazed (see Figure [33](#)).

Rhenish Stoneware. This salt-glazed, sprig-molded stoneware was produced in both brown and grey varieties throughout the 1600s and into the 1770s. The grey variety was decorated with cobalt blue and/or manganese purple, with the latter appearing slightly later, ca. 1675-1700 (Noël Hume 1969:281). The most common forms included Bellarmine jugs, mugs, and chamber pots. The specimens from Heater's Island include all of the glazing and painting variations (see Figures [34](#) and [35](#)) and represent between three and five vessels.

Miscellaneous Stoneware. Two stoneware varieties are represented by one sherd each at Heater's Island (see Figure [31c-d](#)). The first is a grey salt-glazed stoneware body sherd with a dark brown interior glaze. The second example is a buff-pasted body sherd with a yellowish salt glaze, and may represent English Brown stoneware, a type found on American sites from 1690 through the Revolutionary War.

Whiteware. Whiteware is a white-bodied, white-glazed refined earthenware dating to the 19th century. On Heater's Island, the few sherds of whiteware found almost certainly derive from the 19th century farmhouse near the center of the island, and are unrelated to the Piscataway occupation.

Tobacco Pipes. Just over 600 fragments of tobacco pipes were recovered from the excavations on Heater's Island (Figure [36](#)). These include both Native American-made and European-made examples, with the latter by far the predominant type (see Table [8](#)).

European-made Pipes. The English kaolin tobacco pipes found on Heater's Island are typical of those found on late 17th/early 18th colonial sites elsewhere in Maryland (cf. Davey and Pogue 1991). These include heelless (American export type) and heeled examples (see Figure [37a-b](#)); no spurred specimens are included. Decoration is limited to a rouletted or incised line around the bowl mouth just

below the rim, although most of the bowl fragments and all of the stem fragments are undecorated. No makers' marks are found in the collection.

Among the tobacco pipe assemblage are 154 pipe stems with measurable bore diameters. The diameters are distributed as follows: $\frac{5}{64}$ " (22%), $\frac{6}{64}$ " (34%), $\frac{7}{64}$ " (39%), and $\frac{8}{64}$ " (5%). Using Binford's (1962) formula for calculating pipe dates, the Heater's Island sample produces a mean pipe date of 1692.38³² (mean bore diameter of 6.259), some seven years prior to the documented Piscataway relocation to the island. The small sample size may be skewing the dating somewhat. However, assuming that the pipe bore diameter dating is accurate, it may indicate that the Piscataways were forced to curate their pipes for a much longer period, perhaps due to their relative isolation on the island.

A single pewter pipestem (Figure [37c](#)) also was recovered from Heater's Island. This bent object (originally miscataloged as a metal hook) measures approximately 70 mm long, has a maximum diameter of 7.5 mm, and exhibits a bore diameter of $\frac{5}{64}$ " (2 mm).

Native American-made Pipes. A dozen pipe fragments from the Heater's Island assemblage were presumably made by Native Americans. Each is made of an apparently local clay distinctly different from the white kaolin clay used in English pipes. These include both grey and/or red clay specimens, most of which are bowl or stem/bowl junction fragments that are typical Late Woodland "elbow" pipes (and may, in fact, pre-date the Piscataway occupation on the island). Two small red clay pipe rim sherds are present—an unadorned 3 mm-thick rim and a 5 mm-thick rim with an 8 mm-high plain collar (see Figure [38a-b](#)). Examples of decoration include a single red clay bowl fragment adorned with a rotating isosceles-triangle-and-dot motif bounded by an upper and lower rouletted line (see Figure [38c](#)) and a grey clay bowl fragment exhibiting a line of five impressed dots (see Figure [38d](#)).

Two other specimens have been classified as possibly having been made by Native Americans, although it is also possible that these were made locally by the colonists for trade with the Indians. Both of these examples exhibit bowl forms similar to the American export type, but the clay is slightly greyer than kaolin specimens, and the paste is coarser. The first example (Figure [38e](#)) is an undecorated, nearly complete bowl reconstructed from three sherds. The second is a bowl rim and mid-section fragment decorated with a roulette design (Figure [38f](#)). The design, often referred to generically as a "running deer" motif, may be more accurately described as a geometric pattern similar to those defined by Henry (1979:Fig. 5g,h); these designs generally pre-date 1700 (Silas Hurry, personal communication, 2010).

Glass. Green bottle glass (N=183; see Figure [39](#)) dominates this artifact category. Much of this is in the form of heavy body sherds from round wine bottles, although slightly more than two dozen flat green sherds may derive from case bottles. Two neck and lip fragments are present (Figure [40a-b](#)), and two thin green sherds may indicate the presence of vials. Almost one-third of the bottle glass is heavily patinated.

Two clear glass pieces may represent decorative elements. One is a small round piece (it almost appears molded on its outer surface) that may be an appliqué fragment (Figure [40c](#)); it could also be a spall from a glass marble. The second piece appears to be an elongated teardrop (Figure [40d](#)) which may have served as some type of adornment.

Thirteen pieces of flat window (?) glass were found—6 aqua, 4 clear, and 3 green.

Included among the green wine bottle glass sherds are four that appear to have been worked and/or utilized:

- a small spokeshave-like scraper in which some of the retouch flake scars appear lightly patinated (Figure [41a](#))
- an endscraper-like protrusion on a thick blue-green sherd; its working edge margin is somewhat irregular, but the retouch scars are weathered (Figure [41b](#))
- another endscraper, again with an irregular working edge margin, but retouch flakes clearly have been removed (Figure [41c](#))
- 8-10 flakes have been removed from the edge of the upper face of this sherd, producing a straight, sharp cutting edge; the flakes, however, appear fresh, especially in contrast to the patination covering the rest of the sherd (Figure [41d](#)). On the other hand, the opposite edge of this sherd exhibits a series of patinated flake scars that may have resulted from casual preparation of a

sidescraper. It is unlikely that the fresh-looking flakes are a result of shovel damage, but they also seem unlikely to pre-date 1970.

Perhaps serendipitously, all four possibly worked glass sherds derive from a 100-foot area in the northeast portion of the excavations (Lots 122, 120, 116, and 82; see Figure [9](#)).

Glass Beads. Four hundred two glass beads were recovered from the 1970 excavations (see Table [9](#); Figures [42-45](#)). Predominant among these are the so-called Cornaline d’Aleppo beads (Deagan 1987:168-169), where 119 occur as medium-sized round beads and some four dozen are of the seed bead variety. These drawn beads consist of two layers: an outer layer of opaque redwood-colored glass, and a core of what appears at first glance to be black glass. On closer inspection when held to the light, however, the core is revealed to be a light greenish gray to apple green translucent glass.

Next in popularity are opaque black beads (most commonly seed beads, but also in medium to large round and circular varieties) and opaque white beads (again mostly seed beads). Together, these three types—Cornaline d’Aleppo, opaque black, and opaque white—comprise nearly 90% of the beads recovered. A small percentage of the beads (N=6) appear to have been burned or abraded/eroded.

In terms of size, the very small seed beads make up almost half (N=183) of the beads found. Although their provenience has been compromised (most were stored in unlabeled glass vials), they are presumed to have derived largely from Feature 2, a trash pit which contained a copper hawk’s bell in association with “over 100 [seed beads] from an area the size of your hand” (Gross 1970:notes for 8/7/70). Occasional seed beads were recovered from other—mostly plowzone—excavations, and at least 10 were found on the surface of the site.

The majority of glass beads from Heater’s Island are believed to represent personal adornment artifacts—decorative objects strung as bracelets or necklaces, braided into one’s hair, or sewn onto clothing or accessories (the 100+ beads mentioned from Feature 2, above, may represent the remains of a beaded pouch). It is also possible that some of the larger beads—especially the round black beads—may have once been strung as rosaries, indicative of the Jesuit missionaries’ influence on the Piscataway.

Firearms-related. Numerous artifacts related to firearms were recovered from the excavations at Heater’s Island (see Figure [46](#)), including gun parts, gunflints, lead shot, and probable arms-related accoutrements.

Lead Shot. Fifty-two pieces of lead shot were recovered from Heater’s Island, ranging in size from birdshot to buckshot to ball-gauge shot (see Table [10](#); Figure [47](#)) that could have been used in either a flintlock musket or pistol. A number of the smaller pieces of shot—especially the buckshot—retain parts of the stem (or sprue) resulting from manufacture in a gang mold; the ball shot appears to have been cast in individual molds. Most of the shot from the site appears to have been unfired, although flattened, deformed, fired examples occur; several specimens appear to have bite marks (Figure [47b](#)). Some of the smaller flattened specimens exhibit a biconcave profile, often with a central hole (see Figure [47g](#)). It is uncertain if these were intentionally modified, or if their appearance is a result of firing.

Evidence of on-site casting of lead shot includes 14 lead sprues, 2 large (55 x 30 and 46 x 23 mm respectively) pieces of lead casting waste, and 26 smaller (less than 25 mm) pieces of lead casting waste.

Modern ammunition examples from the site comprise 1 .22 caliber bullet, 3 .30 caliber bullets, and 2 12-gauge shotgun shell bases.

Gunflints. Forty-one gunflints or gunflint fragments are in the Heater’s Island collection (see Table [11](#))³³. These specimens are predominantly rounded back spall type gunflints (see Figure [48a](#)), although rectangular/rectanguloid spall types are also represented (see Figure [48b](#)). These are manufactured from European flints ranging in color from light grey to black (English) and honey (French) and a tan chert which may derive locally. A single specimen represents the classic English prismatic blade type gunflint (see Figure [47c](#)); it is made from a grey and tan English flint.

One notable rounded back spall type gunflint is made from local quartz (see Figure [48d](#)); presumably this gunflint was Native-made, perhaps necessitated by a shortage of supplies from the Indians’ colonial sources.

Associated with gunflints at the site are one lead gunflint grip (Figure [48e](#)), a possible lead gunflint grip fragment, and two rolled strips of lead that may have served as raw material for making additional grips.

Gun Parts. A number of firearms-related parts were recovered at Heater's Island, representing both doglock (Figure [49, top](#)) and later flintlock (Figure [49, bottom](#)) muskets and pistols. Among the identified parts are:

- a doglock buffer (Figure [__](#))
- a flintlock trigger (Figure [__](#))
- a possible flintlock trigger (Figure [__](#))
- 2 flintlock sears (Figures [__](#))
- a frizzen spring (Figure [__](#))
- a flintlock mainspring (Figure [__](#))
- a flintlock frizzen (Figure [__](#))
- 2 gun barrels (one **hexagonal?**, 46 mm long, 20 mm wide, .60 caliber; one **hexagonal?**, 62 mm long, 28 mm wide, .65 caliber; see Figures [__](#))
- a flintlock cock jaw screw (Figure [__](#))
- a doglock cock jaw screw (Figure [__](#))
- a flintlock tumbler (Figure [__](#))
- a possible buttplate tang (Figure [__](#); compare with Hamilton 1980:Fig. 50D)
- a possible large bore breech plug (Brown 1980:26), possibly for a fowling piece (Figure [__](#))
- 2 possible (unidentified) gun parts (Figures [__](#))

(Figures [50-52](#))

Nails. Of the 101 identifiable nails and nail fragments recovered in the Heater's Island excavations, 100 are hand-wrought iron specimens (see Figure [53](#)). These include one complete, slightly corroded (33 mm [1.35"]) and one nearly complete, uncorroded (37 mm [1.5"]) rose head nail (see Figure [54a](#)). The remainder of the wrought nails are badly corroded and include 22 mostly complete rose head nails (31-73 mm [1.25-2.9"], with 37 mm [1.5"] seemingly the most common), 46 rose head nail fragments, 24 nail shank fragments, and 6 apparently clinched rose head nails (21-39 mm [0.85-1.6"]). The latter examples (Figure [54b](#)) were presumably bent over to secure boards, such as in the construction of a door.

Two specimens (115 mm, 5 mm diameter [4.5", 0.25"]; 95 mm, 7 mm diameter [3.8", 0.3"]) also may be wrought nails. They are rectangular in cross-section, but they are fairly long and thin. Very heavy corrosion has obliterated any characteristics of a nail head, and has hampered accurate recordation of dimensions, especially their diameters.

The only non-wrought nail is a single 38 mm [1.5"] modern wire brad. It is very likely that this nail—similar to those used to mark transit-shot-grid nodes on survey stakes³⁴—was inadvertently lost by excavators during the UMCP field school.

Brick. Eight fragments of brick are represented in the Heater's Island collection (see Figure [53](#)). All of the specimens appear to be similarly handmade, and all except one are small spalls or chunks. The only sizeable brick fragment (see Figure [55](#)) is measurable in only one dimension; its thickness is between 2" and 2¹/₈". Given the handmade nature of the brick, it almost certainly pre-dates the 19th century farmstead occupation on the island, and is therefore assumed to have resulted from the Piscataway fort occupation. The extremely low incidence of brick suggests that it was brought to the island (i.e., not made on-site) and that it was only a minor structural component, perhaps as negligible as the base of one hearth.

Miscellaneous Metal. An array of metal objects (in addition to gun parts and nails) was recovered from the Heater's Island site (see Figure [56](#)). Where possible, classification of individual artifacts will be attempted, but in many cases an object's function remains unknown; in those cases, only object descriptions will be offered.

Brass/copper objects:

- Jesuit ring with a stamped crucifixion scene (Figure [57a](#)). Bezel is 9 mm high by 8 mm wide. Most of band is missing.
- Brass hawk bell (Figure [57b](#)), 22 mm diameter, 20 mm high. Loop shank is 11 mm high, 6 mm wide.
- Brass Jew's (jaw) harp fragment (Figure [57c](#)), 53 mm long, square in cross-section.
- Brass book/box hinge³⁵ (Figure [57d](#)), 23 x 12 mm.

- Decorative brass strap “keeper” (Figure [58a](#)), 49 x 12 mm, with 2 attachments on the back (see Cofield 2008:23-24).
- Brass leather ornament with a shell motif (Figure [58b](#)), 15 x 12 mm, with 2 attachments on the back, possibly a strap end (see Cofield 2008:23-24).
- Brass buckle fragment (Figure [58c](#)), 25 mm high, 20 mm wide (broken).
- Half of a brass domed button, 15 mm diameter.
- Hollow round brass button, 22 mm diameter, with remnant of an iron loop.
- Brass button, 10 mm diameter, with brass loop stem. Button is embossed with a star pattern on a floral motif background (Figure [58d](#)).
- Copper aglet (Figure [58e](#)), 19 mm long. It is possible that this object is a copper tinkler, but the item, including the seam joint, is more finely fashioned than most tinkling cones.
- Brass tack head, 9 mm diameter.
- Brass tack, 12 mm diameter.
- Brass tack, 12 mm diameter, 14 mm shank.
- Piece of copper sheet, roughly rectangular, 60-68 x 56-84 mm, 1 mm thick (Figure [59a](#)). Pieces of copper clearly have been cut from at least one edge of this sheet, which may have been the source material for some of the copper triangles found at the site.
- Very thin copper tubing bent roughly circular (1.5-2.0 mm thick; approximate 11 mm diameter; see Figure [59b](#)). Similar copper tubing has been found on historic native sites in the Midwest, the Southeast, and the Northeast—including Seneca sites—where it was believed to have been shaped into rings, ear and hair ornaments, and the like (Ehrhardt 2005:126-130; Ward and Davis 1987:88, 91, 94; Wray et al. 1991:257; Beauchamp 1903).
- Thin rolled copper strip, 9 x 6 mm, flat dimensions approximately 15 x 9 mm.
- Rolled copper strip, 12 x 10 mm, flat dimensions approximately 24 x 12 mm.
- Tightly rolled copper strip, 16 x 6 mm. Flat dimensions are not estimated, but the strip is rolled at least 3 times.
- Copper strip (flat dimensions approximately 21 x 10 mm) which has been folded and crimped like a small bracket with an 11 x 7 mm face, and 8 mm stem, and a T-shaped cross-section.
- Thin piece of copper folded over on itself. Surviving fragment (11 x 9 mm) is T-shaped. The crossbar of the “T” could be the rim portion of a delicate vessel, 1.5 mm thick.
- Rectangular piece of copper (20 x 12 x 0.5 mm).
- Triangular piece of copper (37 x 8 x 0.5 mm).
- Squarish piece of copper (18 x 18 mm) with a 4 mm hole near one corner.
- Copper piece (flat dimensions approximately 23 x 11 mm) folded as if to cover an angled object (e.g., a wooden corner).
- Copper piece (flat dimensions approximately 35 x 21 mm) folded and bent, with 6 1-mm holes (Figure [59c](#)).
- Folded copper strip, 28 x 6 mm, flat dimensions approximately 28 x 13 mm. The copper is folded like cladding to cover a 3-mm-thick square-edge object, much like a window lead.
- Fragment of iron-encrusted copper, 21 x 18 mm, 6 mm thick.
- Thin piece of copper, 7 x 9 mm, with copper rivet (?).
- Brass/pewter piece, 30 x 16 mm, bent and pitted.
- Brass/pewter fragment, 10 x 10 mm.
- Heavy gauge trapezoidal copper scrap, 18 x 17 mm.
- Twenty-two pieces of thin copper scrap, 3 of which are bent. Sizes range from 28 x 18 mm to 8 x 10 mm).

Iron objects:

- Knife tip (Figure [60a](#)), 53 x 16 mm.
- Knife blade fragment and tang (Figure [60b](#)). Blade fragment is 19 x 19 mm; tang is 31 mm long.
- Knife blade (111 x 26 mm) with rivet near one end.
- Knife blade fragment (47 x 22 mm) with bent/curled tang (Figure [60c](#)). It is also possible that this item was part of a strike-a-light kit (Silas Hurry, personal communication, 2010).
- Presumed knife blade fragment, 70 x 25 mm.

- Presumed knife blade fragment, 66 x 25 mm.
- Presumed knife blade fragment, 45 x 28 mm.
- Presumed knife blade fragment, 42x 17 mm.
- Presumed knife blade fragment, 40 x 19 mm.
- Presumed knife blade fragment, 31 x 30 mm.
- Smoker's companion, 98 x 23 mm (Figure [60d](#)).
- Disk (ca. 47-mm diameter) with raised rim. Probable snuff box (Figure [60e](#)).
- U-shaped bracket with stem, 133 mm high x 91 mm wide (broken). Suggested functions include a gun rest or a tong for lifting a crucible (Figure [61](#)).
- Spike, 143 mm long.
- Bolt, 173 x 15 mm, with square head.
- Hook fragment, 27 x 29 mm, 8-11 mm thick.
- U-shaped piece, 38 x 40 mm, 6-7 mm thick.
- Bar fragment, 44 x 11 mm, 7 mm thick.
- Round washer, outside diameter 24 mm, inside diameter 13 mm, 2 mm thick.
- Twist-style can opener key (e.g., like from a shoe polish can).
- 57 unidentified small fragments.

Other metal:

- Rectangular cube of lead, 12 x 7x 8 mm, notched in the center, with two opposite side flaps, one flat, one folded up (Figure [62](#)).

Faunal Remains. Nearly 1,200 small fragments of shell and bone were recovered from Heater's Island (see Table [12](#)). The assemblage was analyzed by Dr. Elizabeth Moore, and the results of her analysis (Moore 2013) are summarized below.

Approximately 25% of the faunal assemblage could be classified according to genus or species. Most of the mollusk and land snail specimens are unclassifiable, although one freshwater mussel, eastern elliptio, was identified. Turtles include eastern box, musk, snapping, and pond slider varieties. Aside from a probable rock dove specimen, bird bone could not be classified beyond avian. Mammals are represented by eastern mole, probable black rat, opossum, raccoon, dog, bear, deer, and pig.

Butchering scars were found on snapping turtle, dog, raccoon, deer, pig, bear, and a number of unidentified mammal and turtle specimens. Thirteen bone fragments exhibit wear and polish indicating their use as bone tools. These include fragments of hide-scrappers (Figure [63](#)) and the tip of a needle or awl (Figure [64](#)). Two fragments appear to have been shaped as decorative items: a section of a zig-zag pattern (Figure [65](#)) and a highly polished, slightly burned, bone sliver decorated along one edge with a series of parallel cut marks (Figure [66](#)).

Overall, the Heater's Island faunal assemblage is atypical of a 17th century Native American occupation (which normally include large amounts of deer supplemented by turkey, squirrel, raccoon, and turtle along with a wide variety of other terrestrial and aquatic fauna). At Heater's Island, however, there is deer and one raccoon, but turkey, squirrel, and fish are absent (the latter may have resulted from the use of ¼-inch mesh screens and no flotation). A number of long bones exhibit spiral fractures (presumably for marrow removal) and much of the other bone is highly fragmented, suggesting possible additional cooking for maximum extraction of nutritional value. The wide variety of turtle seems especially notable for the relatively small assemblage. And last, the dog tibia exhibiting cut marks (Figure [67](#)), indicating it was butchered for food, is uncommon for Native American sites (see later discussion).

Botanical Remains. No systematic program for the recovery of botanical remains was carried out at the Heater's Island site—flootation was not undertaken on-site and feature fill samples were not collected. Nonetheless, a cursory visual examination of retained bulk charcoal samples did reveal a number of charred corn kernels interspersed with the wood charcoal. Of course, the presence of corn at the site is not unexpected. Archeological evidence indicates a long agricultural history for the Piscataways and their predecessors. And archival records from the late 17th/early 18th century continually refer to the Piscataways growing corn:

- **February 19, 1680** (at Piscataway Fort) — The Susquehannock threat was such that “that they [the Piscataways] dare not venture out of their ffort to plant their Corne for their sustenance” (Archives of Maryland 1896:329).

- **June 20, 1681** (at Zekiah Fort) —Captain Randolph Brandt reports that “the Sinniquos laid their [the Piscataways’] Corne feild ffence downe and they [the Piscataways] are in such feare dare not make it up” (Archives of Maryland 1896:374).
- **June 1, 1697** (in Virginia) — Major William Barton reports on the Piscataways recently arrived in Virginia “where they have made a fort & planted a Corne feild [sic]” Archives of Maryland 1899:520.
- **April 21, 1699** (at Heater’s Island) — As part of their report on the Piscataways to Governor Nicholson, Vandercastle and Harrison state, “As for Provisions they have Corne, they have Enuf and to spare” (Palmer 1875:64).
- **December 1704** (at Heater’s Island) — Colonel James Smallwood arrives at Heater’s Island on the heels of a smallpox outbreak that had claimed the lives of 57 Piscataways, the remainder of whom “had left their Forte, where they have a greate deal of Corne in their Cabbins and all the last Years Corne Standing” (Archive of Maryland 1906:377).
- **March/April 1712** (at Heater’s Island)—Christoph von Graffenried, in annotations for his map of the Potomac, notes “Island of Canavest, elevated country and very good, where the Indians or savages had planted some fine Indian corn” (Todd 1920:391).

So, while it is not surprising to find archeological evidence of corn on the site, it is exciting to think that some of these charred kernels could be the last vestiges of the “Corne in their Cabbins.”

Discussion, Interpretations, and Conclusions

While preparing the archeological site report presented above, a series of potential topics for discussion presented themselves. This section attempts to address these varied, and seemingly disconnected, subjects. In reality, however, the topics are truly connected because they all involve the historic Piscataway people, especially during their occupation of Heater’s Island. As such, the goal of the discussions that follow is to add flesh to a technical report by weaving tantalizing archeological data with a rich body of archival resources, and thereby presenting a more complete picture of the 17th century Piscataways and their world.

The Fort

Little is known with certainty about the fort itself at Heater’s Island. Vandercastle and Harrison (Palmer 1875:64) describe it as being 50 to 60 yards on a side, implying that the fort was square, perhaps in the “European style.” In reality, it is likely that the Piscataways may have copied European-style forts, perhaps even learning English techniques from the colonists (in 1660, the Piscataways—anxious to rebuild their fort at Piscataway before the Seneca could attack—requested from Governor Phillip Calvert “that for pay they might have foure English men to helpe them make their Forte” [Archives of Maryland 1885:403; see also Marye 1935b:204]). Similarly, it is possible that in 1680 the Piscataways received colonial assistance when building their fort in Zekiah Swamp (much as Maryland had done for the Susquehannocks previously [Marye 1935b:204]). In fact, “European style” forts were used extensively by Native Americans during the colonial period, and evidence presents a fairly consistent picture of how these forts were constructed (Curry 2008; see Table [13](#)): a palisade wall set in a trench forming a square 100- to 200-feet on a side, often with corner bastions. Anecdotally, initial artifact distributions from the recently discovered Zekiah Fort—the 1680 predecessor to the Heater’s Island fort—also indicate the likelihood of a 150-foot square fort (Julia King, personal communication, 2011; Flick et al. 2012).

The Heater’s Island fort comfortably fits this model—150-180 feet on a side (based on eyewitness accounts), with at least one bastion, the walls which appear to have been set in a one-foot deep trench (based on archeological evidence). It is disappointing that more archeological evidence of the fort’s construction was not uncovered, but a conjectural reconstruction of the fort—based on the one bastion and the reported size of the fort—illustrates how easily even fairly extensive excavations could have

failed to intercept wall features (see Figure [68](#)). Nonetheless, a good archeological correlate for the fort at Heater's Island can be found at Monhantic Fort in Connecticut. Here we have a fort of roughly the same age (1675-1680), measuring almost identical to that reported for Heater's Island (52 x 58 meters vs. 50-60 yards on a side), with corner bastions of a size and shape identical to the one at Heater's Island (see Figure [69](#)). Monhantic Fort, and the archeological work done there (McBride 2006a), could serve as an excellent guide for any future excavations at Heater's Island.

Houses

Aside from the mention of 18 “cabins” inside, and 9 outside, the fort as observed by Vandercastle and Harrison in April of 1699, there is little evidence of what the Piscataway houses on Heater’s Island looked like. No recognizable postmold patterns were discerned during the excavations, and no historical accounts describing the houses have been found.

Perhaps this should not be surprising. Until very recently, complete house patterns at prehistoric sites in the Potomac valley had eluded archeologists. In 2002, a complete house pattern was exposed at the Winslow site (18MO1), revealing an oval wigwam measuring 14 x 12½ feet (4.3 x 3.9 m); a second structure at the site was slightly larger, measuring 17 x 14 feet (5.2 x 4.3 m) (Dent 2005:36-38). Subsequent excavations at the Pig Point site (18AN50) on the Patuxent River have revealed a series of similar oval house patterns averaging roughly 16 x 12 feet (4.9 x 3.7 m) (Luckenbach 2009:40-41). So the region demonstrates a tradition of oval wigwams during late prehistory. But did this pattern hold true well into the Contact period?

Given the apparent adoption of European-style forts and the presence of both nails and brick on Heater’s Island, it seems plausible that European-style houses were also adopted by the Piscataways. And while the use of the term “cabins” might just be a generic term for house, it stands in contrast to the term “huts” used by a number of early explorers to describe Indian houses. As early as 1634, “the Werowance of Paschatoway [Kittamaquund] desired the Governor [Leonard Calvert] to send him a man that could build him a house like the English” (*Relation* 1635:39). Furthermore, there are some tenuous indications from Pennsylvania that Indian houses came to resemble European houses. At Conestoga Town—an Indian village spanning the occupation dates of Heater’s Island—two rectangular houses (15 x 50 feet and 15 x 35 feet) were uncovered (Kent 1984:382). Kent (1984:382) notes that the corners of the houses were neat right angles, and speculates that the structures were cabin-like, possibly of frame construction similar to that described in 1760 at the town of Machachlosing (“They measured eighteen by thirty feet in ground plan, and were constructed of a framework of split planks planted upright in the ground and covered by bark.” [Wallace 1990:228]). A 1717 map of Conestoga Town depicts neatly aligned houses with peaked roofs (Kent 1984:380). [A similar style “Indian cabin” was described by John Fontaine (1852:264) on June 12, 1715 along the Mattaponi River in Virginia where the house “was built with posts put into the ground, the one by the other as close as they could stand, and about seven feet high, all of an equal length. It was built four-square, and a sort of roof upon it, covered with the bark of trees.”] At Conoy Town—where the Piscataways relocated shortly after leaving Heater’s Island—excavations revealed one partial house pattern: two parallel lines of postmolds 15 feet apart; unfortunately neither end of the house was found (Kent 1984:400). And a 1742 reference to “a logg’d house about 20 feet long and 15 feet wide” used to store arms and ammunition may imply the use of English construction techniques by Indians on the Eastern Shore (Archives of Maryland 1908:260).

So, it seems possible that the cabins at Heater’s Island were rectangular, framed-constructed buildings, at least one of which may have contained a masonry component. Assuming a typical size of somewhere around 15 x 30 feet (sort of a hybrid of the houses at Conestoga Town and Machachlosing), 18 such cabins could easily fit within a fort measuring 60 yards on a side, although house spacing within a 50-yard square fort would have been considerably tighter (see Figure [70](#)). On the other hand, if traditional wigwams—measuring roughly 16 x 13 feet—were used, even the smaller-sized fort would have been comfortably sufficient. [It should be noted that the European-style Monhantic Fort in Connecticut—abandoned by the Pequots some 20 years before the Piscataways arrived on Heater’s

Island—evidences the use of traditional wigwams (McBride 2006a:323).] Perhaps future excavations on the island will help answer this question.

Transportation

Various historical accounts (e.g., Vandercastle and Harrison in 1699, Smallwood in 1704, and von Graffenried in 1712) depict the arduous nature of travel—for even the “well-equipped”—in the early 1700s. Given this challenge, what must it have been like for the Piscataway leaders to have travelled from their forts to St. Mary’s City or Annapolis for meetings with the governor or his councils? And even more so, how did several hundred Piscataways undertake their widespread “migrations” from fort to fort across the landscapes of Maryland, Virginia, and Pennsylvania (see Figure [2](#))? Unfortunately, the archeological data from Heater’s Island does little to answer these questions. Nonetheless, examination of various colonial documents can offer us some insights on this matter.

Travel by Water. Given that Heater’s Island lies in the middle of the Potomac River, it is not surprising that the first two accounts of the Piscataways at this location address the question of access. The initial report from Vandercastle and Harrison on April 21, 1699 describes the river at Heater’s Island as “nott ffordable Excepe in a very dry time” (Palmer 1875:64). Six months later, on November 3, 1699, Straughan and Tillett arrived at the island and “asked them [the Piscataways] for a Canoe; they told us they had none, soe wee Ventred to Ride into the Island, and passed over very well” (Palmer 1875:67). Clearly, the river was passable by horse or on foot at times of low water (as it is today), but it is almost inconceivable that several hundred Piscataways and all their possessions were moved onto the island without the benefit of canoes, not to mention the need for canoes in the course of daily life on the island over the next 10 to 15 years. At first blush, the Piscataway claim that they had no canoes might appear a ruse intended to discourage Straughan and Tillett from venturing onto the island. However, another explanation may be warranted.

In 1712, Baron Christoph von Graffenried recounts “[f]rom Canavest we came down the river to this point [“L”] in a boat or canoe which the Indians had made of bark, expressly for us” (Todd 1920:392). Von Graffenried’s vivid description of this voyage provides salient details on both Indian canoes and canoeing:

After we had come down again from this mountain [Sugarloaf] to a place at the foot where there was a very fine spring and good soil, we went to Martin Charetier’s where we were lodged and treated after the Indian fashion. The day after, we departed in order to return home. We went down the river. For the purpose of the descent the Indians with marvelous skill made us in less than a half day a small boat of the bark of trees. We got into it, five of us, besides two savages, who managed the boat. We even put in our baggage. It was charming going down the river to see the beautiful country on the sides and the pretty islands, but when we came close to a great rock in the middle of the river, not far from the falls, as is to be seen on the map (number 6), we found the passage dangerous, for about this rock which is almost a little mountain with a pretty plain up on top where an Indian lived, there are still a number of small rocks and great stones, which make the passages swift, narrow, and bad. I did not want to go down it, and we all got out except Mr. Rosier, who, knowing the skill of the Indians, risked it. When we saw from a distance the turns they had to make, what inexpressible skill it needed to steer this canoe or boat, we almost thought there was some magic in the act, and we were very glad to be out of it, especially when we heard the Indians singing as they passed at great speed, almost striking against a great stone or rock. But this made my good Mr. Rosier pray, bold as he might be. At a quarter of a league beyond this bad passage they stopped and we got into the boat again. Good Rosier, still very pale with fear, assured us that he would never be so rash again. We went down the river very nicely and easily from there to the falls. At a quarter of a league from them we got out, the valets having brought our horses to that place. Nevertheless before mounting our horses we saw how the Indians carried the boat upon their shoulders into the forest to repair it, they taking good

care not to tell us that the end was damaged by striking against a rock. It was necessary to shorten the boat by cutting off the end. After having it well repaired, the Indians brought it back to the river and were rash enough to go down the rapids or great falls of the Potomac. They passed down very nicely, according to their story, but yet they caused us considerable anxiety [because] they delayed very much before they joined us at Mr. Rosier's where we lodged.

(Todd 1920:384-385)

This short passage is packed with information. First, it is implied that the Piscataways had no canoe readily available for von Graffenreid's trip, and had to construct one expressly for this purpose. We learn further that the canoe was built in less than half a day and was constructed from tree bark (Guzy [2011:28] suggests that elm bark was used, since birch trees did not grow in the region). Although no dimensions are provided for the canoe, it was large enough to seat seven grown men, along with the non-Indians' baggage, and was light enough to be carried by two men. Clearly, the craft was maneuverable among the Potomac's many rocks. And the impromptu vessel was durable enough to survive a lengthy trip (roughly 30 miles from Canavest to point "L" above the falls with two Indians and five passengers, and then, following repairs, another 30 miles through the falls³⁶ and on to Mr. Rosier's residence by the two Indians).

So, were the Piscataways being deceitful when they told Straghan and Tillett that they had no canoes? Perhaps not. Perhaps canoes were viewed as expedient vessels—just as easily quickly made and discarded after use as made and maintained long-term in a harsh environment. While archeology has not answered this question—and is unlikely to answer it in the future—it is an important aspect of Piscataway life that deserves consideration.

Travel by Land. The obvious and probably most common form of travel on land was by foot. Certainly Native Americans had employed this conveyance for thousands of years. And as arduous and inefficient as it may sound to the modern reader, accounts of early explorers demonstrate how common foot travel was, especially for Native Americans. Lawson (1709:31) recounts a 20-mile journey by foot in the Carolinas, noting that his party had trouble keeping up with their Indian guide—who walked “like a horse”—until “we sadl’d him with a good heavy Pack of some Part of our Cloaths and Bedding; by which Means we kept Pace with him.” Lederer (1672:20) and von Graffenried (Todd 1920:272, 275) both mention the ability of Indians on foot to keep pace with colonists traveling on horseback. Furthermore, distance was not necessarily a deciding factor in whether or not to journey by foot. For instance, von Graffenried notes, “From there [Colonel Bell’s plantation] one goes to Canavest horseback or on foot”—a distance of some 40 miles (see Figure [6](#)).

So, foot travel was a given. But what of the notion that the Piscataways may have used horses as well? This question first arose when several brass artifacts from the site were thought to have come from horse tack (this is still possible, although they could have decorated other objects just as easily, and there are no definitive horse-related items such as harness buckles, bridle bosses, or stirrups from the site). But were horses available to the Piscataways? By the time the Piscataways arrived at Heater’s Island (and, in fact, much earlier) horses were abundant in Maryland. Although initially horses were scarce enough to require a 1647 law forbidding exportation of horses from the colony (Semmes 1938), their reproduction rate soon produced a glut of horses throughout the English colonies (de Steiguer 2011:108). By 1664, Governor Josias Fendall was being petitioned to curb (via fencing) the stock of horses running wild at Port Tobacco and destroying Indian cornfields (Archives of Maryland 1932:139). The fencing of horses to protect Indian cornfields was raised again in 1686 and culminated in a 1715 law determining “the Height of Fences to prevent the Evil occasioned by the multitude of Horses & Restraining Horse Rangers within this Province and to redress the great Evil accruing to this Province by the multiplicity of Useless Horses Mares & Colts that run in the woods” (Archives of Maryland 1910:70); this law was being renewed as late as 1763 (Archives of Maryland 1941:241). In 1675, Maryland rangers were ordered to search the woods near the Susquehannock Fort on Piscataway Creek for a large supply of horses lost following the siege of the fort (Archives of Maryland 1896:56). By 1704—just 50-some years after the ban on horse exportation—the numbers of free-roaming horses had prompted “an Act prohibiting the

importation [emphasis added] of...Mares Colts or fillys from pennsilvania" (Archives of Maryland 1918:182). Clearly, horses were plentiful and available to the Piscataways. Unfortunately—as with the archeological record—the historical record is fairly silent on whether or not the Indians took advantage of the availability of horses. Presumably theft of horses by Indians occurred, but there is little documentation of this. A 1678 law stipulated that any Indian who stole livestock was subject to the same punishment as an Englishman (Archives of Maryland 1986:214). And in 1697, Colonel John Addison reported that the Indians had pulled down the fence at the rangers' garrison, driving away all their horses (although this may have been a ruse to draw the rangers out of their garrison) (Archives of Maryland 1903:217-219). And no mention of Indians purchasing horses could be found. [In fact, more common were references to Indians killing horses, including "for their provision" (Archives of Maryland 1896:281, 283, 300; 1898:213).] Nonetheless, the lack of archeological and archival evidence of the Piscataways using horses does not preclude it having occurred. Clearly horses were available to the Indians, and there was some colonial concern regarding horse theft. And use of horses by Indians might not have left much of an archeological imprint, especially if horses—like canoes—were used expediently (i.e., procured, ridden, and discarded). Perhaps future archeological work will help answer this question.

Dogs and Hogs

The identification of a butchered dog tibia (Figure [67](#)) from within the bastion trench at Heater's Island was an unexpected and surprising find. Dog remains are rather common on Late Woodland and later sites, but seldom is butchering indicated. In fact, the most common occurrence of domesticated dogs in the Middle Atlantic region is the finding of their remains buried in purposeful graves, often associated with human burials. At the Accokeek Creek site, where nearly 40 dogs were found, Stephenson et al. (1963:58-59) note that four complete dog skeletons were found within human burial pits. Similarly, at the Winslow site, a dog skeleton was found buried just outside of Structure 1, within which was found the remains of an adult human female (Dent 2005:43). Unlike four previously found dog burials at Winslow—each of which was intact except for a missing skull—the dog burial outside Structure 1 was complete, and its location relative to both the structure and the human burial implies a relationship. A similar situation was noted at the Claggett Ossuary at Piscataway Fort, where a dog was interred in the center of the ossuary pit among the bones of some 280 humans (Curry 1999:37). In Virginia, Rountree (2012) contends that the Powhatans did not eat dogs, although she allows that they may have ritually sacrificed dogs. Further affirmation of this situation in Virginia is found at the Hatch site where more than 130 dog burials were found, sometimes in ritualistic contexts. Despite this huge number of dogs, the remains were usually articulated, and no evidence of cut marks or other signs of butchery were found (Kerber 1997:86).

So, were dogs eaten by Native Americans? Certainly, early explorers and missionaries witnessed this practice, as recorded in historical accounts. Perhaps the most detailed accounts involve the Huron, who were known to eat dogs during feasts and as part of religious ceremonies (Tooker 1964:66-67, 73). And the presence of butchered dogs at a number of archeological sites in the Northeast seems to indicate consumption of dogs (Kerber 1997:82). Nonetheless, the practice seems rare in the Middle Atlantic region, and there is no record of such consumption among the historic Piscataway, who, it would seem, considered dogs to be physical—and perhaps spiritual—companions. How can a clearly butchered dog bone at the Piscataway fort on Heater's Island be explained? Were the Piscataways facing severe food shortages that required desperate measures to stave off starvation?

In reality, there was no food shortage, and almost certainly the butchered dog was not associated with the Piscataway occupation. While it is not certain when the Piscataways moved from Virginia to Heater's Island, it was most likely sometime between November 1698 and March 1699. The first recorded English observation of the Piscataway on the island was in mid-April 1699, when Vandercastle and Harrison reported their fort "nott quite ffinnished" (Palmer 1875:64). The unfinished fort substantiates the relatively recent Piscataway arrival to the island, and provides context to the butchered dog bone: it was found in the bastion trench, part of the then-unfinished fort, and presumably a result of

one of the first activities undertaken on the island. Furthermore, food was not in short supply—in fact, it was plentiful—“As for Provisions they have Corne, they have Enuf and to spare” (Palmer 1875:64). [This was also the case five years later in December 1704, just after smallpox had struck the village, when Col. James Smallwood reported “they have a greate deal of Corne in their Cabbins and all last Years Corne Standing” (Archives of Maryland 1906:377).] So there was no food shortage; clearly the Piscataways had brought sufficient corn from their Virginia settlement, and had probably already planted their first corn crop on Heater’s Island. In all likelihood, the butchered dog bone came from an earlier Montgomery Complex or, more probably, Mason Island Complex occupation on the island. And since the fort trench would have been one of the first features dug by the Piscataways, it could have easily disturbed an earlier feature, thereby mixing components. The Mason Island Complex occupation is the more probable source for the butchered dog given the lack of butchering at the Montgomery Complex Winslow site. Furthermore, the large Mason Island Complex village at Foster White on the opposite bank of the Potomac in Virginia yielded a relatively large number of human burials (40+; see Curry 2010), perhaps an indicator of dietary stress within that group.

The scenario outlined above may explain a non-Piscataway presence of butchered dog at the site, but it may also call into question other remains found in feature contexts—if the dog bone in the bastion trench is argued as having derived from an earlier occupation on the site, why not other remains as well? Certainly, this is a caution that needs to be heeded on any multi-component site, and Heater’s Island is no exception. However, while cases can be made for and against the butchered dog being associated with the Piscataway, some remains clearly derive from the historic Piscataway occupation, including the Contact period artifacts and at least one other faunal species found at the site—pig. Pigs were introduced to the New World by European explorers (Christopher Columbus included them on his second Caribbean voyage in 1493, and Hernando de Soto introduced them into the Southeast circa 1539). The English introduced pigs to the Middle Atlantic region in 1607 with the settlement of Jamestown, and later swine were common on the 17th century Maryland landscape, where settlers allowed them to freely forage the forested countryside for mast. This free range approach to pig farming would result in a number of problems between Indians and colonists.

Because English swine were left to range the forest much like wild deer, the Indians tended to exploit pigs as they did deer. As early as 1648, there are accounts of Indians killing swine (Archives of Maryland 1887a:426) and of stealing and driving away entire stocks of swine (Archive of Maryland 1887a:409). By the 1660s, Indians guilty of killing hogs were fined in lengths of roanoke—40 arms length in the case of two Indian boys caught with hog’s flesh (Archives of Maryland 1936:629) and 60 arms length for Winganatto, King of the Nanjemoy, whose dog killed a hog belonging to a colonist (Archives of Maryland 1936:414-415). Similar problems were illustrated by the case of the King of Chaptico who was charged with killing a wild sow, taking her pigs, and raising them as his stock. As a result of this case, the colonists asked the court that Indians not be allowed to keep hogs, because under that pretense they could destroy all the hogs belonging to the Manor (Archives of Maryland 1936:630). In 1666, the Council of Maryland dictated that Indians were to be fined 50 fathoms of peake for every hog killed (Archives of Maryland 1885:549), but a group of Indians complained that they should not be blamed for killing hogs if the colonists could not keep their swine out of the Indian corn (Archives of Maryland 1884:14-15). Ultimately, articles of peace signed with various Indian nations, including the Piscataway, agreed that the Indians should “fence their Corn ffields from hoggs & Cattle of the English” and if any Englishman tears down such fences, he must make full satisfaction for damages to the Indians (Archives of Maryland 1896:291).

Based on these brief recorded accounts, the presence of pig remains at Heater’s Island is hardly unexpected. Whether the Piscataways were raising their own stock of swine, bartering with colonists for pork, deliberately stealing and/or killing English hogs, or opportunistically capturing feral pigs running loose in the countryside, pigs were readily available to the Piscataways and were incorporated into their subsistence strategy, both here at Heater’s Island and earlier at Zekiah Fort (Flick et al. 2012:163).

Small Pox

In late 1704, Colonel James Smallwood reported to the Maryland Council that the Piscataways had recently suffered an outbreak of smallpox which had killed 57 men, women, and children. Estimating the total Piscataway population prior to 1704 is problematic, but approximations range between 120 and 300 individuals (Curry 2011:349-350). If accurate, this would indicate a mortality rate of approximately 20-50%. And while the Piscataways clearly recovered from this epidemic—von Graffenreid encountered a once-again vibrant village on Heater’s Island (which he called Canavest) in 1712—their population numbers never fully recovered. Ultimately, their diminished numbers may have led to the Piscataways’ merger with other tribes—such as the Nanticoke—once they settled in Pennsylvania.

In terms of future archeological work, the smallpox epidemic on Heater’s Island raises two questions to be considered. First, it is apparent that the Piscataways had abandoned the fort on Heater’s Island, probably at least 2 or 3 months prior to Smallwood’s visit [Smallwood’s expedition arrived in December of 1704 to find “last year’s corn” still standing in the fields; normally this would have been harvested by the end of September (Heckewelder 1876:156)]. Where the 60 to 200+ surviving Piscataways relocated during this time span is not known, but it is an aspect that deserves consideration during future archeological studies in the region.

The second question related to the smallpox epidemic concerns the location of the victims. Where and how were they buried? The Piscataways had a long tradition of secondary burial in large ossuaries, although none are securely documented after the 1630s (Curry 1999:69-73). The sole burial encountered on Heater’s Island is almost certainly not related to the Contact period Piscataway occupation (it most closely resembles burials from the Late Woodland Montgomery Complex). So where are the 57-some smallpox casualties, not to mention those who died from other causes during the 12+ years of occupation? Almost certainly they remain on the island if the settlement at Conoy Town is any indication. Conoy Town, located in Lancaster County, Pennsylvania, was occupied by the Piscataways from circa 1718 to 1743 and has long been collected and excavated (Landis 1933; Kent 1984:391-392). During excavations in 1970, local residents alerted archeologists to nearby finds of human remains. Subsequent excavation at this location—some 200 yards south of Conoy Town—revealed the Conoy Cemetery (36LA40). Here were found the remains of 71 individuals, mostly bundle burials of disarticulated bones. Individual interment pits contained the remains of one to five individual and—though not classic ossuary burials—demonstrate the continued tradition of secondary burial among the Piscataways. Also noted was a preponderance of grave goods, especially with pre-adults. These include glass (25,000+) and shell (wampum) beads; small brass objects like rings, bells, and other decorative items; copper and brass medals; iron knives; pewter spoons, buttons, and pipes; and kaolin pipes (Kent 1984:398).

So we can speculate on the fate of Heater’s Island’s smallpox victims. As the epidemic struck, it probably moved through the settlement fairly rapidly. The dead would have been buried or, more probably, placed on burial scaffolds. Seeking to distance themselves from the contagion, the Piscataways briefly abandoned the fort. Upon their return, or sometime after their return, they would have gathered and bundled the bones—now cleaned of flesh—and interred the bundles in grave pits, perhaps grouping individuals by family units. These secondary burials and accompanying grave goods would have been interred in a distinct cemetery area, probably some distance outside the fort. Other village inhabitants who died over the course of the Piscataway occupation would have been treated similarly, with a period of primary burial or scaffolding to remove the flesh and then reburial as bundles in the cemetery area. Any future archeological work needs to be keenly aware of the likelihood of such a situation on the island.

The Piscataways and the Jesuits

The recovery of a tiny Jesuit ring (Figure [57a](#)) from Heater’s Island evokes questions about the Jesuit influence on the Piscataways. Much emphasis has been placed on the Jesuit missions dating to the founding of the Maryland colony (Fr. Andrew White, Fr. John Altham, and lay brother Thomas Gervase

were aboard the *Ark* and the *Dove* in 1634), and certainly Fr. Andrew White proved to be a capable ethnographer and linguist (he composed a grammar, dictionary, and catechism in the Piscataways' Algonquian language). He and the other Jesuits also proved to be ardent missionaries. On July 5, 1640, Fr. White baptized the Piscataway Tayac Kittamaquund (Figure [71](#)), along with his wife and infant daughter, and his councilor Mosorcoques and his infant son; Kittamaquund's conversion to Christianity also included wearing English clothes, learning the English language, and adopting monogamy. In addition, in 1641 Kittamaquund sent his seven-year-old daughter to St. Mary's City to be educated by the English under the guardianship of Leonard Calvert and Margaret Brent. This daughter eventually was baptized (Mary Brent Kittamaquund) and went on to marry Giles Brent. And in 1642, the Queens of both the Portobacco and Patuxent Indians—along with 130 other members of their tribes—converted to Christianity (Campbell 1906; Hall 1910:136; Semmes 1937:449; Axtell 1986).

Despite this apparent success, the quality of these conversions—and the success of the English Jesuits vis-à-vis that of the French Jesuits in New France—has long been questioned (Semmes 1937:449; Axtell 1986). Part of this stems from the disparity in the number of converts—by 1643, the French Black Robes had baptized some 2700 Indians in Canada, whereas Fr. White and his fellow English Jesuits had documented fewer than 150 converts. The reasons for this were diverse. First, from 1632 to 1643 the Jesuit missions in Canada included 40 priests and 13 lay brothers; the English missions included 11 priests and 3 lay brothers—four of whom stayed only briefly and eight of whom had died by 1646 (Axtell 1986:5). Clearly the English Jesuits were stretched thin. For example, in 1639, four priests and one lay brother were stationed in four missions—Mattapan at the mouth of the Patuxent River, Kittamaquundi at the head of the Piscataway Creek, Kent Island in the Chesapeake Bay, and St. Mary's City near the mouth of the Potomac River (Campbell 1906:300). In addition, the Jesuits were not merely missionaries—they also had to minister to the Catholic colonists, especially at St. Mary's City. Circumstances also intervened. When the Queens of the Portobacos and Patuxents converted in 1642, some 130 of their subjects followed suit. Clearly the Jesuits must have expected similar results two years earlier with the conversion of Kittamaquund. However, following the elaborate baptism of Kittamaquund—which was attended by the governor and other dignitaries—Fr. White contracted a “chilling fever” that would plague him for a year, and Fr. Gravener developed a severe foot problem and eventually died from an abscess (Axtell 1986:3). Their infirmity clearly hampered “follow-up” conversions that otherwise might have been expected in the wake of Kittamaquund’s baptism. And finally, unlike the Jesuits in New France, the Jesuits in Maryland were not provided with basic provisions—food, clothing, etc.—by their Order. They had to secure their own sustenance by raising their own crops, purchasing or bartering for supplies, and importing their own servants (Riordan 2004:54-55). Such expenditure of effort for basic needs certainly must have hampered their priestly efforts.

With respect to the “quality” of the conversions, historians point to the relatively short period of catechism required by the English Jesuits—Kittamaquund was schooled for a year prior to baptism, considerably shorter than the three years required by the French Jesuits. Also mentioned are commemorative gifts that may be viewed more as bribes. One example cites 40 Maryland Indians whose English shirts originally given as baptismal gifts had fallen into disrepair; the 40 converts threatened to renounce their baptism if new shirts were not provided (Axtell 1986:6). And a final indication that converted Piscataways’ Christianity might have been short-lived has been surmised from their burial practices (Merrell 1979:561). At Piscataway, ossuary burial was practiced prior to and during the early Contact period (Curry 1999:28-37, 69-73). And while no Christian-style burials are known for the Piscataways, it is clear that they either did not abandon—or reverted to—secondary burials following the English Jesuits’ missionary work: in 1678, the Emperor reported that “most of their great men were very busie in gathering together their dead bones” (Archives of Maryland 1896:185), and bundle burials were the norm well into the 1700s at Conoy Town (Kent 1984:391-401) and as late as 1745 on the Juniata River as observed by missionary David Brainerd (Edwards 1880:350).

So how did Catholicism and the Jesuits fit into Piscataway life, especially at Heater’s Island? That is difficult to answer. Certainly during the period of active missions (1634-1645), there was great interest among the Piscataways in the Jesuits and their teaching. Part of this may have stemmed from the

fact that the Jesuits were trading partners, and the Piscataways stood to profit from successful interaction. Part of the interest was more spiritual. Kittamaquund had experienced two dreams featuring the Jesuits, the governor, and a beckoning god that greatly impressed him. Subsequently, Fr. White successfully treated Kittamaquund for an illness that his shamans had been unable to cure. Similarly, there is the account of an Anacostan warrior suffering from a seemingly fatal arrow wound; after Fr. White treated this warrior by applying a relic of the true cross to the wound, the Indian was later seen paddling a canoe (Axtell 1986:3-4). So there was at least a fascination among the Indians with the Jesuits and their potential powers, and the Jesuits were making headway in their spread of Christianity. In 1645, however, during Ingle's Rebellion, the Jesuits were expelled from the colony. And, while they returned in the 1650s, the Jesuits emphasis had shifted from the Piscataways and other tribes to the needs of the colonists themselves.

So could the Jesuit influence have survived 50 years to account for the Jesuit ring found at Heater's Island? Probably not (although, perhaps paradoxically, most Piscataways are today Roman Catholic [Gilbert 1945:240]). Perhaps the ring represented an heirloom kept from the English Jesuits (Fr. White mentions "trifles"—"little bells, combs, fishing-hooks, needles, thread, and other things of this kind"—used as gifts for the Indians [*Relation* 1635:83]). But survival of such a small, delicate ring for 50 years—during village relocations from Piscataway to Zekiah to Virginia to Heater's Island—seems equally unlikely. Could this ring have originated with the French Jesuits, perhaps through trade with a Seneca Indian?³⁷ Certainly the French Jesuits were still active in the Great Lakes region and the Mississippi Valley at the time, and the Seneca had had a presence in Maryland—sometimes raiding the Piscataways, sometimes seeking refuge with them—for at least two decades. Anecdotal evidence for such a possibility is offered by the following account:

In early 1705 while ranging "a greate Circumference" Lieutenant [Charles] Beall captured a Seneca Indian wearing a crucifix and beads and brought him to Colonel Addison for examination...

Through an interpreter, Indian Robin, Colonel Addison learned that the Seneca had been Christened Nicholas by a Jesuit Priest while in Canada where he had gotten the cross he wore.

(Castle 1963:13)

Furthermore, while Jesuit rings are known to date from the 1620s to the 1760s (Mason 2003), the embossed crucifixion motif is believed to post-date 1686 (Mason 2006), thus likely ruling out an English Jesuit origin.

Similarly, if any of the beads—especially the black ones—from Heater's Island do represent the remains of rosaries (perhaps akin to the "crucifix and beads" worn by the Seneca above), they most likely originate with the contemporary French Jesuits rather than surviving from the English Jesuit missions of Fr. Andrew White and his associates.

Indian vs. Colonist Machinations

Alcohol Use

Problems associated with alcohol use among the Native American tribes of the eastern woodlands were widespread (Mancall 1995a, 1995b; Thomson 2010), and Maryland's Indians appear to have been no exception. The presence of high numbers of green bottle glass (N=183; compare to ceramics, N=255)—as well as perhaps olive jar sherds (N=4)—suggests that this problem extended to Heater's Island. Green glass onion bottles commonly held wine and brandy, but other alcohols (beer, hard cider, and—especially after 1650—rum) would have been contained in wooden casks which might be difficult to discern in the archeological record. How big of a problem liquor was among the Indians is likewise difficult to discern. And while the stereotypical "drunken Indian" portrayed by colonists (and especially clergymen) may have resulted from overemphasis or misunderstanding, it is clear that vast quantities of

alcohol were traded to the Indians (Mancall 1995a:11-28, 53-54). Also clear are the dire social consequences of the liquor trade, including the three most commonly cited by colonial legislatures: interfering with the cultural conversion of the Indians; threatening the safety of the colonists; and endangering peaceful relationships between the colonists and the Indians (Mancall 1995a:109). As an example of the scope of the Indian alcohol problem in Maryland, and possibly on Heater's Island, the following timeline is reconstructed from historical records:

- September 2, 1679—The Nanticoke chiefs Tequassino and Hatsawapp petition the Council of Maryland, asking that English inhabitants be prohibited from selling any strong drink to any of the Indians (Archives of Maryland 1896:260).
- March 22, 1683—King Ababco (Choptank) promises to keep his Indians from drinking strong liquors, just as Lord Baltimore has taken steps to keep strong drink from being sold to the Indians (Archives of Maryland 1898:229).
- December 29, 1683—Lord Baltimore issues a proclamation prohibiting the sale or giving of liquor to the Indians. He justifies this because liquor was traded to the Indians “in such Quantities as to render them drunk and mad.” Furthermore, he goes on to say that the trade of liquor to the Indians “oftentimes proved...of very fatal Consequence to this Province, the masters or Owners of such liquors not onely creating to themselves thereby their owne trouble and disturbance with the hazard of their owne lives, but also endangering bringing upon the Province a chargeable and expensive Warr” (Archives of Maryland 1898:178-179).
- September 15, 1687—The Council of Maryland issues a proclamation allowing free trade with all Indians for anything “except strong drink and flesh” (excepting deer and wild fowl) for the next year (Archives of Maryland 1887b:557).
- December 1, 1688—The Choptico Indians complain that drink is being brought to their town by the English, trading it for skins, and keeping the Indians poor and making them drunk, especially one Francis Knott who sells rum for skins and cheats the Indians (Archives of Maryland 1890:53).
- April 25, 1692—The Emperor and Great Men of Piscataway and other Indian towns complain against the “Irregularity of their young Men when they get drunk, and desiring the Prohibition of carrying Rum or Other strong Drink among them for the future” (Archives of Maryland 1890:327).
- May 14, 1692—The Articles of Peace and Amity between Governor Lionel Copley and Othotomaquah, Emperor of Piscataway, state “He [Othotomaquah] likewise moves his Excellency that no persons may be permitted to carry any Strange Liquors to the fort [presumably Zekiah Fort] among his Indians, but that his Excellency will Please to grant him an Order to Prohibit the Same” (Archives of Maryland 1894:271).
- June 10, 1692—The Governor and Council of Maryland order “all Persons whatsoever do henceforth forbear and desist from carrying sending or conveying any Rum or Other strong Liquors to the Piscattaway Fort [Zekiah Fort], or Other Indian Town, to sell give or dispose of thereof to the Indians” (Archives of Maryland 1890:328).
- In 1694, the General Assembly enacted “An Act Prohibiting the Inhabitants of this Province or any others from carrying Liquors to the Indian Towns & Cabins.” This legislation specified that “any person or persons whatsoever Inhabiting or trading into this Province that shall presume to carry any Liquors whatsoever to any Indian Forte Towne or Cabbin and shall vend or dispose of the same to any Indian or Indians whatsoever such person or persons shall forfeite the Sume of Five Thousand pounds of Tobaccoe” (Archives of Maryland 1918:15-16).
- In a 1697 accounting of the nations of Indians residing in Maryland, Governor Nicholson inserted a note, “But the Indians in these parts decrease very much, partly owing to small-pox, ‘but the great cause of all is their being so devilishly given to drink’” (Fortescue 1904:425).

- The 1694 law (above) prohibiting carrying liquors to the Indian towns was reenacted by the General Assembly in the summer of 1699 [shortly after the Piscataways relocated from Virginia to Heater's Island] and on October 3, 1704 [shortly after the smallpox outbreak on Heater's Island] (Archives of Maryland 1902:511; 1906:348).
- The Acts of the General Assembly for 1712 [while the Piscataway were presumably still on Heater's Island] state, "Whereas it is Represented to this Generall Assembly That of late Severall disorders and Riotts have been Comitted by drunken Indians, In Order to p'revent such like future Misfeazances & Outrages Be it Enacted by the Queens most Excellent Maj^{ty} by and with the Advice and Consent of her Majestys Presid^t Council and Assembly of this Province and the Authority of the same That if any person or persons whatsoever from and after the first day of December next Ensueing shall by himselfe or Servants or otherwise directly or Indirectly vend or Sell to any Indian or Indians in the Space of One day above One Galloon of Rum Wine Brandy or Spirits or above Five Gallons of Syder Perry Quince drink or Strong Beer such person or persons being Convicted thereof shall forfeite the Sume of Tree [sic] Thousand pounds of Tobacco... That it shall not be lawfull for any of her Maj^{ts} Subjects to buy or purchase from any Indian or Indians whatsoever any Guns or Match Coates for Liquor upon pain of returning to the Indian or Indians Such Guns or Match Coates" (Archives of Maryland 1918:147-148).
- November 7, 1713—The Nanticokes again complain to the General Assembly that English settlers have brought strong liquors ("Rum & Cyder") to sell at their town (Archives of Maryland 1909:229).
- June 3, 1715—The Acts of the General Assembly for 1712 (above) are reenacted (Archives of Maryland 2000:211).
- May 18, 1719—The Choptank Indians complain that the English are bringing strong drink to their towns and selling it among the Indians (Archives of Maryland 1913:312).
- In 1722 at Conestoga, Pennsylvania, the Conoys joined Mingoes and Shawnees to complain of "the Damage they receive by strong Liquor being brought among them" (Mancall 1995a:121).
- September 21, 1745—David Brainerd, missionary to the Indians of New York, New Jersey, and Pennsylvania, comments, "The Indians [Conoy and Nanticoke] of this island [Juneauta, Pennsylvania]...having formerly lived in Maryland...are very vicious, drunken, and profane" (Styles 1821:132).
- September 22, 1745—Brainerd continues, "I made further attempts to instruct the Indians on this island, but all to no purpose. They live so near the white people, that they are always in the way of strong liquor" (Styles 1921:134).
- Heckewelder (1876:91), in discussing the Nanticokes and Conoys in Pennsylvania circa 1748, similarly notes, "They were destroyed in part...by the free use of spirituous liquors, to which great numbers fell victims."

It is clear from these accounts that the liquor trade caused problems for more than four decades. And while the "drunken Indian" characterizations by people like Nicholson, Brainerd, and Heckewelder may have been parochial, it is apparent from the numerous complaints by Indian chiefs that the Indians themselves recognized a growing problem. The response from colonial authorities—fearing colonial safety, trying to maintain peace, and concerned about the potential economic costs of liquor-induced unrest—range from policies discouraging trade to enacted legislation outright banning the trade of liquor to the Indians. Perhaps the most stringent laws prohibiting provision of liquor to the Indians were enacted in the period from 1694 to 1704 (during which time the Piscataways established residence on Heater's Island). These in essence prohibited any form of conveyance of any form of alcohol to any Indian or Indian town/fort/residence (or, after 1699, *within three miles* of any Indian town/fort/residence), subject to a fine of 5,000 pounds of tobacco. Subsequently, in 1712, the laws were changed to try to limit the

amount of liquor that could be traded. Throughout, however, the policies were largely unsuccessful. English traders enabled—and perhaps even encouraged—Indian drunkenness. There were profits to be made, and perhaps even greater profits if one could cheat a drunken Indian. The 1712 ban on trade of Indian guns or matchcoats for liquor seems to reinforce the perceived propensity for Indians to trade anything for liquor, thereby endangering their livelihood and risking poverty (cf. Mancall 1995a:96-100).

Whether or not existing archeological data or future excavation at Heater's Island can elucidate the actual role of alcohol at the site is unknown, but it is clear that this aspect of Indian life should be considered during any reconstruction of Piscataway society during the colonial period.

The “Emperor of Piscataway” and the Fate of the Piscataways

(see reminder note)

Bow and Arrow vs. Firearms

Firearms—and the Indians' access to them—were a constant concern in the colonial Chesapeake. While at first, during early European explorations, Native Americans may have feared the loud, smoke-billingowing guns (Arber 1910:138), they soon desired the new weapons for their own arsenals. Within a decade of the founding of the Maryland colony, the Council of Maryland had issued orders prohibiting provision of guns, powder, or shot to the Indians (Archives of Maryland 1885:103). This ban was reinforced by various legislation enacted over the years, beginning by at least 1654 ("If any Shall be found Selling of Gunns Powder Shott or Lead to any Indian or Indians it shall be fineable according to the Nature of the fact in the Iudgment and discretion of the Commission^{ss}" [Archives of Maryland 1883:346]). Nonetheless, a short two decades later (in 1678), the Piscataways were clearly equipped with firearms when they requested supplies of powder and shot from Lord Baltimore (while noting that if these were not furnished, the Piscataways "must be forced to fall to makeing of Bows and arrows wherein for want of practice they have not that experience as formerly" [Archives of Maryland 1896:242]). And the artifact inventory from Heater's Island (gun parts, gunflints, lead shot) reflects the Piscataways' apparent ready access to firearms.

And yet, nearly three dozen copper/brass arrowpoints (only slightly fewer than the number of gunflints) were found at Heater's Island. Why would the bow and arrow still be a prominent weapon long after firearms were made available to the Piscataways?³⁸ It seems such a flimsy weapon, especially as described by Fr. Andrew White in 1634:

...their weapons are a bow and bundle of arrows, an ell long, feathered with turkies feathers, and headed with points of deers hornes, peeces of glasse, or flints, which they make fast with an excellent glew which they have for that purpose, the shaft is a small cane or sticke, wherewith I have seeme [sic] them kill at 20 yards distance, little birds of the bignesse of sparrows...their bow is but weake and shoots level but a little way...

(White 1634a:21-22)

Nonetheless, colonial records continually—until at least 1697—record men, dogs, horses and other livestock being killed by Indian arrows (Archives of Maryland 1896:302, 306; 1894:259; 1899:522-523).

So why did the bow and arrow persist? Part of the answer may lie in the rate of fire: bowmen can shoot 7-12 arrows per minute (Jones 2007:63-64), whereas the flintlock can fire only 2-3 rounds per minute (Jones 2001:270). Part of the answer may lie in the weapons' accuracy: certainly the ability of an archer to kill a sparrow at 20 yards is impressive, a feat unlikely to be matched by an unrifled musket (and certainly not by a pistol). And part of the answer may lie in how the weapons worked. Firearms may have been a formidable weapon despite problems with rate of fire and accuracy merely because of the terror their noise induced (although, certainly any shot that did hit its target could be catastrophic). The bow and arrow, on the other hand, may have been preferred because of its *lack* of noise. This certainly

would have been beneficial in hunting (where the gun might scare off game) and would have suited stealthy attacks on colonists and foreign Indians alike. And perhaps the advantages of rate of fire, accuracy, and stealth were combined with an added lethality suggested in this 1742 account from the Eastern Shore:

...several Nations of our Indians have built a logg'd house about 20 feet long and 15 feet wide in Pocomoke Swamp for a Repository to secure their Arms and Ammunition, and that they now in the said house have several Guns with a good deal of Ammunition and a large Quantity of poisoned Arrows pointed with Brass...

(Archives of Maryland 1908:260)

Could poisoned arrows have overcome the shortcomings of the bow's lack of range and the apparent flimsiness of the copper arrowpoints³⁹ found at Heater's Island?

Certainly, as indicated by some of the earliest historical accounts, poisons were known to—and poisoned arrows were used by—the Indians of Maryland and Virginia. In 1607, Gabriel Archer (1607:49) records for the Powhatans near the falls of the James River, “[o]ne gave me a roote wherewith they poisen their arrowes.” Similarly, Speck (1928:350) relates, “[a] tradition is related by the Mattaponi concerning the poisoning of arrowheads by their ancestors. It is said by Powhatan Major there that the stone arrowheads with a flat side, and especially those with corrugated edges, were intended to carry a poison made from rattlesnake venom-glands mixed into a paste.” In Maryland, the early Nanticoke were known for concocting vegetable poison (Heckewelder 1876:92; Speck 1922:13-14). This vegetable poison was probably derived from cowbane or water hemlock (*Cituta* spp.) which would have been available in the bald cypress swamps along Nassawango Creek and the Pocomoke River. In addition to its use as an arrow poison, the Nanticoke also used it in poisoning streams as a method of fishing (Speck 1927:32); this method has also been reported for the Pamunkey, Chickahomini, Mattaponi, and other Southeastern groups (Flannery 1939:19).

Whether venom- or plant-based, these toxins⁴⁰ could have increased the efficacy of the bow and arrow to ensure its place as a formidable weapon, especially when used in conjunction with firearms. And this combination of weapons may reflect the Piscataways overall approach to adopting European goods. First, there was a certain prestige attached to having a flintlock (much like Emperor Kittamaquund's desiring English clothing and an English house). And there were advantages to using firearms—even if just to give one's enemies pause. Nonetheless, the Piscataways retained the traditional bow and arrow for its effectiveness, perhaps as a back-up weapon (gun repair was a frequent problem), and perhaps as a symbol of identity.

Material Culture

(compared to Posey, Zekiah Fort, Camden, Conoy Town, etc.)

(Table 14)

Notes

1. This modernized quote is from the April 21, 1699 report by Giles Vanderasteal (Vandercastle) and Bur Harison (Harrison) to the governor of Virginia on their trip to Heater's Island, "We, The subfcribers, have beene with the Empeour of Piscattaway, att his forte" (Palmer 1875:63-65).
2. The island has been known by various names over time. The map drawn by Graffenried in 1712 refers to "Canavest vill. Ind." and an accompanying annotation (note "H") is keyed as the "Island of Canavest." On February 18, 1724, Arthur Nelson patented the island as a tract called "Nelson's Island." Robert Brooke's 1737 map of the Potomac River refers to the island as "Conoy Island, once an Indian Plantation" (Foster 1938:408). By 1808, Charles Varle's map of Frederick and Washington Counties lists the area as "Ir' [?] Delasmuts [sic] Islands" (the Delashmutt family was related to early settler Arthur Nelson through marriages to his daughters Elizabeth and Sarah). Chancery Papers from 1812 (mortgage foreclosure, Delashmut and Cunningham vs. Briscoe et al.) appear to refer to the island as "Trammells Conoy Island" (MSA 1812). In 1858, the Isaac Bond map of Frederick County names the island "Heter's I," J.W. Donn's 1865 coastal topographic sheet of a portion of the Potomac River uses "Heter's I^d" in the map title, but "Heters' Isl'd" on the island itself; and by 1873 this name is transformed into "J. Heters Island" on the D.J. Lake atlas of Frederick County. In 1910, the U.S. Geological Survey 15' Antietam quadrangle map (surveyed in 1907-08) lists the island as "Heaters Island."

Despite the USGS's tendency to drop apostrophes in its map names, the original name of the island almost certainly referred to an island belonging to the Heter family (various Heters could be found in the Point of Rocks vicinity as late as 1971 [Kenny 1984:112]), and the name of the island should, therefore, be possessive. It is unclear why the "a" was added to the name in 1910, but that spelling (Heater) survives today. In addition, the formal name of archeological site 18FR72 is recorded in the state site files as "Heater's Island." For these reasons, both the island and the site are referred to as "Heater's Island" throughout this report.

3. Alice Ferguson, based on her archeological work at the Accokeek Creek site (Stephenson et al. 1963), believed that the palisaded village of Moyaone was John Smith's *Moyaons*. Given the total lack of Contact materials at Moyoane, however, it is believed to date to the late 16th century, and was probably the immediate predecessor to the village *Moyaons* noted by Smith in 1608.
4. The date at which the Piscataways abandoned Zekiah Fort is uncertain. The last recorded reference to "Zachiah fort" was on March 28, 1689 (Archives of Maryland 1890:91). A subsequent entry from December 22, 1690 mentions the "touwnes of Chopticoe and Zakiah" (Archives of Maryland 1890:224), and a final reference to "Zachaja or Mattaponi corn Fields" was made on August 16, 1692 (Archives of Maryland 1890:349).

Further complicating matters are references to other reported and potential Piscataway settlements at various locations. Stephenson and Ferguson (1963:23) state "In 1697 the Piscataways...after a short stay at Little Falls where the Maryland officials made them most welcome, left Maryland and settled in the wooded hill country of Virginia;" no source is provided. Hickey (1970:25) repeats this undocumented statement.

Following the Piscataways' departure to Virginia in the spring of 1697, a series of colonial documents record various locations proposed for Piscataway settlement if they were to return to Maryland. On June 8, 1697, a delegation of ten Marylanders sent to the Piscataways at their new fort in Virginia, seeking their return to Maryland, encountered a mixed group of Indians during their expedition to the fort. This mixed group included some "Pomunkey, the Mattawoman King, and Some Piscattaway Indians" who assured the delegates that, if the Emperor of Piscataway would not return to his former home in Maryland, this group "would either Joyn with the Choptico Indians or Settle at Pomunkey" (Archives of Maryland 1903:143). Two days later, the delegation reached the Piscataway fort and met with the Emperor, who said that the Piscataways "would Return as soon as possibly they could [but not before the next Spring because their corn was already planted] into the Governm^t of Maryland and settle either at their old ffort nigh Piscattaway or about Rock Creek"

(Archives of Maryland 1903:145). Several months later, on October 15, 1697, Maryland Governor Nicholson and the Council of Maryland relay a number of concerns to Virginia Governor Andros. Among these is the request for Andros to send some men to the Piscataway fort to gather intelligence on the Indians, and to convey to the Piscataways their need “to make haste to returne for Maryland and that if they should be wanting of Corne, this Province [Maryland] will furnish them for their pay, and that they may resettle Piscattaway or Rock Creek w^{ch} they think fitt” (Archives of Maryland 1903:242-245). This choice between Piscataway and Rock Creek can be interpreted several ways. On the one hand, the choice between “their old ffort nigh Piscattaway or about Rock Creek” seems to imply that they could reoccupy their former site at Piscataway, or establish a new settlement somewhere “about Rock Creek.” Marye (1935b:226-227), however, interprets the second statement that the Piscataway could “resettle Piscattaway or Rock Creek” to mean that both sites may have been former settlements/forts. A final reference to Rock Creek occurs on April 4, 1700 when the Council of Maryland advises “that the Indians be told to come in & live upon their Land there & that if they will give Assurance of their fidelity they Carry some of the English along with them to Rock Creek to see their Fort demolished there” (Archives of Maryland 1905:84). At first blush, this confusing statement seems to say if the Piscataways return to Maryland, they can take some Englishmen to help demolish the Piscataway fort at Rock Creek. But this account explicitly states that negotiations are taking place with the Emperor Ocquotomacquah, who by March 1699 was at the Piscataway fort on Heater’s Island (not at Rock Creek as might be implied). Furthermore, it is possible that the “fort” described in this quote is actually the Ranger fort at New Scotland (New Scotland Hundred covered the Maryland area from Oxon Branch to the falls of the Potomac, and included the Rock Creek area). As early as November 24, 1697, Prince Georges County was petitioning the Governor to maintain and support the garrison and fort at New Scotland, as well as possibly building a new fort to allow for a fall-back position (Archives of Maryland 1903:327-328). On March 19, 1697/8, the House of Delegates urged the Governor “to Continue the Rangers att New Scotland...until the Indians doe come in,” at which point they imply the garrison can be de-commissioned (Archives of Maryland 1902:21-22); the April 4, 1700 statement may be merely reiterating this sentiment. Regardless of the documentary mentions of Rock Creek, as is the case with Little Falls, there is no firm evidence of a 1697 Piscataway occupation at Rock Creek.

Feest (1978:245-246) states that in 1699 the Piscataways “moved to Harrison Island in the Potomac River, just above the mouth of Goose Creek.” Then in 1700, some may have settled at Pamunkey, but none stayed long, and shortly thereafter all “refugee Conoy” moved higher up the Potomac to Heater’s Island. The scenario presented by Feest is largely unsourced, and seemingly confuses documented locations with proposed locations of the Piscataway. I have found no other documentation that the Piscataway ever settled at Pamunkey, and the only other reference to their occupation of Harrison Island is Powell’s (1966a) map of archeological sites in the National Park Service’s National Capital Region. On the north end of Harrison Island, Powell (1966b:6), citing National Capital Region Archeological Survey Records, locates “Piscatway Fort Site, stockade historic Indian fort.” (These NPS records have since been lost [Stephen R. Potter, personal communication, 2009]). Aside perhaps from an unusual tanged copper arrowpoint reportedly from Harrison Island in the William Wimsatt collection housed at the Maryland Archaeological Conservation Laboratory (Accession No. 1992.059.001), I am unaware of any evidence for a possible Contact period occupation on the island.

As mentioned above, I have been unable to secure any documentation that the Piscataways ever settled at Pamunkey. There are, however, several mentions of Pamunkey as a potential relocation site for the Piscataways. On April 4, 1700, the Council of Maryland is informed via Indian trader Hermage Robinson that the Emperor of Piscataway and his men will come to Annapolis the following Monday to renew their “Articles of Peace and Amity” (Archives of Maryland 1905:83-84). Records from April 8, 1700 detail these negotiations, during which the Emperor is told that he can “live at Accokick or Pamunkey,” whichever he likes best; the Emperor agrees upon “Pamunkey” (Archives of Maryland 1905:85). The next day, formal Articles of Peace and Amity are signed by the Governor (Blakiston) and the Emperor (Ocquotomaquah), and include this final clause, “And lastly as a full & ample Proof & assurance of the said Emperors Fidelity truth & sincerity he does Solemnly promise engage & oblige himself with his wife & Children to come and Live at pamuncky within two months

time from the date hereof & will do his utmost endeavor to perswade all his Indians to come and live there Likewise" (Archives of Maryland 1905:88). Three months later in a July 3, 1700 report of their interview with the Emperor, Phillip Haskins and William Dent state that the Emperor "Consents to remove his family and property from his 'fort' down to Maryland, opposite lower Stafford County" (Palmer 1875:70). This land "opposite lower Stafford County" corresponds to the Pomonkey area of Maryland, broadly defined as the region between Pomonkey Creek and Mattawoman Creek, and shown as "Pamunki Indian Land" on Augustine Herman's 1670 map of Virginia and Maryland. Again, however, there is no evidence that the Emperor and/or his people ever followed through on the promise to relocate to Pamunkey.

Given the lack of any solid evidence for Piscataway occupation at any of the locations mentioned above, my contention is that the Emperor and the main body of Piscataways most likely moved their primary settlement from Zekiah Fort to the hill country of Virginia to Heater's Island in sequence.

5. Eugene Scheel (n.d., personal communication, 2013) conjectures that the 1697-98 Piscataway village in Virginia was situated at Glen Ora farm (44FQ94), on the Little River just south of Middleburg, Virginia.
6. Since William Barton is also listed as a member of this "second" delegation to the Emperor, it is possible that only one journey took place, with two different reports being filed—dated only a week apart. However, the perceived results portrayed in the two accounts are completely different: Barton says the Piscataways 'utterly refuse' to return to Maryland (Archives of Maryland 1899:521), whereas the Tench-Addison account states "that they would Return as soon as possibly they could into the Governm^t of Maryland and settle either at their old ffort nigh Piscattoway or about Rock Creek" (Archives of Maryland 1903:145).
7. The realms of colonial Maryland and Virginia often overlap in colonial archives. Adding to the confusion are Governors Edmund Andros and Francis Nicholson. Sir Edmund Andros served as Governor of Virginia from 1692 to 1698; from September 25, 1693 to July 26, 1694, he also served as Governor of Maryland. Sir Francis Nicholson served as Governor of Maryland from 1693/94 to 1698/99; from 1698 to 1705, he was Governor of Virginia.
8. Shortly after James Stoddert's slave was attacked in Maryland, and around the time (late spring 1697) the Piscataways moved from Zekiah Fort to Virginia, William Wigginton's wife and children were attacked by Indians in Stafford County, Virginia. [Records variously state that the Wiggintons were killed (Archives of Maryland 1903:183-187) or mortally wounded but "all of them are alive and like to Recover" (Archives of Maryland 1903:182).] The attack was led by a Pamunkey, "Esquire Tom." A June 29, 1697 letter from Capt. George Brent (Archives of Maryland 1903:187-188) relates the story of Esquire Tom, as learned from Choptico Robin. According to Brent, about five months earlier, Esquire Tom was at the Falls of the Potomac where he encountered some Piscataways, some Senecas, and a Susquehannock "great man" named "Monges." Monges took Esquire Tom aside and convinced him that the Pamunkeys would be ruined by the English, assisted by their Piscataway allies. To prevent this, Monges suggested that if Esquire Tom were to kill some English settlers, he would be rewarded by the Susquehannocks. Furthermore, Monges convinced Esquire Tom that the Emperor of Piscataway and his people would be blamed for such actions, thereby doubling Esquire Tom's revenge. Following the attack on the Wiggintons, Esquire Tom and his seven cohorts escaped the scene, but were soon apprehended by rangers led by George Mason. Brought to trial in Stafford County, Esquire Tom and his accomplices implicated the Emperor of Piscataway in the attack. Forced to defend himself, the Emperor appeared before the Stafford court, and succeeded in getting one of the accused attackers to recant and reveal the true details recounted in George Brent's letter. Esquire Tom's seven accomplices were subsequently hanged in Virginia, but somehow Esquire Tom escaped into Maryland and is presumed to have eventually disappeared among the Iroquois (Harrison 1924:95).
8. This July 3, 1700 assertion that the Emperor "speaks in English as well as in the Indian tongue" is somewhat curious given Governor Blakiston's use of an interpreter a short time earlier during negotiations with the Emperor (Ocquotomacquah) in Annapolis on April 8, 1700 (Archives of

Maryland 1905:84-86). Although it is possible that the interpreter was used for the benefit of the “other Indians” accompanying the Emperor, the record clearly indicates that Blakiston “bad[e] the Interpreter to tell the Emperor of Piscattaway...” (Archives of Maryland 1905:85). It should also be noted that the June 8, 1697 Tench–Addison delegation to this same Emperor of Piscataway (then residing in Virginia) required the use of an interpreter (Archives of Maryland 1903:144).

10. It appears that Heater’s Island was considered the “frontier” ca. 1700, i.e., it was referred to as neither Virginia nor Maryland in colonial documents.
11. Apparently this journey, undertaken in December 1704, was more arduous than that described by Vandercastle and Harrison in April 1699, for on May 23, 1705 the General Assembly records the following, “The Petition of James Smallwood praying an Allowance for an Horse spoiled going up to the Indian Fort being read is allowed by Majority of Votes one thousand Pounds of Tobacco” (Archives of Maryland 1906:500).
12. Graffenried most likely traveled to the Potomac in March or April of 1712. By May 8, 1712, he was in Virginia (Gov. Spotswood letter; cited in Todd 1920:88), and by July 26, 1712, he had returned from his exploration of the Potomac (Gov. Spotswood letter; cited in Todd 1920:89-98).
13. Graffenried was so enamored of Canavest that he entertained thoughts of establishing a replacement colony for New Bern here. He also thought Canavest might provide a refuge from his creditors. Realizing that neither Canavest nor any other location would serve as safe harbor, Graffenried returned to London in 1713, and to Bern in 1714, where he wrote *Relation of My American Project* (Todd 1920) as an apology for the failed New Bern settlement. He died in Bern in 1743, miserable and impoverished.
14. Hobbs (1961:116) translates this as, “On this River from Canavest to the Falls, there is in winter such a prodigious number of Swans, geese, and ducks that the Indians profit by the feathers.”
15. The notion here of the “Piscataways leaving Maryland” refers to the cohesive tribal group of people whose primary settlement has been traced from Piscataway Fort, to Zekiah Fort, to Virginia, to Heater’s Island, and ultimately to Pennsylvania and beyond. However, it is clear that not all tribal members left at the same time (the final migration to Pennsylvania seems to have occurred in staggered increments), and it can reasonably be assumed that some individual Piscataways (and their families) may have elected to remain behind, perhaps returning to their ancestral homeland in southern Maryland. Oral tradition among groups identifying themselves as modern Piscataways holds that numerous individuals and families lived in self-imposed isolation in remote areas of Prince Georges and Charles Counties (Tayac 2004; NMAI 2006:8). In fact, such a case is documented in 1736 when “George Williams, an Indian” petitioned the legislature to intercede with landowner Charles Pye to allow “the said Indian and his Family [to] live quietly upon the Land where they are now settled [on Mattawoman Neck in Prince Georges County]” (Archives of Maryland 1908:93-96). That other similar Piscataway settlements went undocumented would not be unexpected.
16. The absence of any mention of an Indian village or fort at this location on Philemon Lloyd’s 1721 map, “Patowmeck above ye Inhabitants,” provides circumstantial evidence that the Piscataways had abandoned Heater’s Island by 1721. “Memoranda” attached to Lloyd’s map (“...ye Cunnoyes [Conoy]; A Numerous Poeople [sic] wch heretofore Inhabited ye Upper Parts of yt River...”) seem to indicate that the Piscataways had left the region well before 1721 (Marye1935a:5-6). They were certainly gone by February 18, 1724 when Arthur Nelson patented what is now Heater’s Island as a tract called “Nelson’s Island” (Tracey and Dern 1987:13).
17. Landis (1933:122) notes that “before 1728 there was a town of the Conoys or Piscataways located at the mouth of Catawissa creek, on the north branch [of the Susquehanna], not far east of Shamokin. Doubtless those were of this same tribe, but whether they went there direct from Maryland or whether they migrated from here [Conoy Town in Lancaster County, Pennsylvania], we do not know.” See Landis (1933) for a detailed discussion of the Piscataways’ tenure in Pennsylvania.

In addition, there is the following first-hand “history” of the Conoys’ settlement in Pennsylvania, related by their chief in 1743, Old Sack:

The governor laid before the Board the following Letter, which was wrote by Mr. Cookson at the Instance of the Conoy Indians:

“May it please your Honour—

“The Indians of Conoy Town, on the East side Sasquehanna, in the beginning of April Last sent me a Message, signifying their having some thing to Communicate to your Honour by me, and desired me to be at Home the 11th of the same Month, on which Day they came down to the Number of 14. I invited them into my House, and after some time Old Sack (who is the Chief of that Town) spoke to the following purpose: ‘We desire you to acquaint our Brother the Governor, that our fforefathers came from Piscatua to an Island in Potowmeck, and from thence down to Philadelphia in Old Proprietor Penn’s Time, in Order to shew their ffriendship to the Proprietor; That after their return they brought down all their Brothers from Potowmeck to Conejoholo, on the East side Sasquehannah, and built a town there.

“ ‘That the Indians of the six Nations told ’em there was Land enough, they migt chuse their place of Settlement any where about Sasquehannah.

“ ‘That accordingly they thought fit to remove higher up Sasquehannah to the Conoy Town, where they now live; And on their first settling, the Indians of the six Nations came down & made their ffire, and all the great Men declared the fire of their Kindling in token of their approbation of their settling there; But that now the Lands all around them being settled by White People, their hunting is spoiled And they have been long advised by the six Nations to leave the place and go higher up the River and settle either at the mouth of Conodogwinnet [opposite Harrisburg], Chiniotta [Juniata], or up at Shamokin.

“ ‘That now they are come to a Resolution to remove up to Shamokin; And, therefore, according to their Custom, they desire to acquaint their Brother, the Governor, therewith, that he may know certainly where to find them upon any occasion; that they will be down at Philadelphia in one Year, and then they hope the Governor or some Gentlemen of Philadelphia will give them something for their old ffields.’ And in order to satisfy your Honour that this Message was sent down at their instance, they desired the String of Wampum herewith sent to be delivered.

“Upon hearing that the Stragling Indians were call’d into their Towns upon Account of the late Skirmish in Virginia, I told them I hoped they were under no Apprehension of Staying amongst the white People, especially of this Province, for that they might be well assured they might remain very secure in their Treaty with this Government so long as they behav’d agreeably to it. To which the Old Man answer’d, that what had happened in Virginia was no motive at all to their removal; That they were under no fear of Apprehension of our People’s using them ill, And that the sole reason was to be settled a little from the Inhabitants for the sake of their Hunting.

“As they observed to me form in the thing, I thought it would be expected that I should be particular, or should have reduc’d it to the necessary parts.

“I am Yo^r Hon^{rs} most obed^t Humble serv^t

“THO. COOKSON.

“Lancaster, 1st May, 1743.”

(Pennsylvania Archives 1851a:656-658)

18. Numerous sources repeat the assertion that the last appearance of the Piscataways as a tribe was at a 1793 conference/council in Detroit (Mooney 1889:265; Hodge 1907:340; Ferguson 1937:44; Ferguson and Ferguson 1960:43; Humphrey and Chambers 1977:28; Cissna 1986:200). However, this council actually took place at the “foot of the Miami [now Maumee] Rapids,” southwest of present-day Toledo, Ohio (see Curry 2011). The documents resulting from this council (July 27, 1793 and August 13, 1793), which refused to cede Indian land north of the Ohio River, were signed by numerous Native tribes, including the “Connoys” who signed using a turkey symbol (Stone 1838:355; see Figure __). (The mistaken Detroit appellation for this council may have resulted from

the fact that the Commissioners of the United States—with whom the Indians tribes had been trading correspondence—were camped at the mouth of the Detroit River.) This refusal to cede lands led to hostilities between Native tribes and U.S. forces, and culminated in the Battle of Fallen Timbers on August 20, 1794. During this one-day battle, forces under the command of Gen. “Mad Anthony” Wayne defeated a combined Indian group which included members of the Miami, Shawnee, Delaware, Ottawa, Chippewa, Mingo, Pottawatomie, and Wyandot tribes. A formal peace agreement (and surrender of the Ohio territory)—the Treaty of Greenville—was signed on August 3, 1795, thus ending the “Indian Wars.”

Furthermore, I have been unable to corroborate the statement that only 50 Piscataways remained at the time of the 1793 council. Nonetheless, the Piscataways (or Conoys) are not mentioned in the usual lists of tribes participating in the Battle of Fallen Timbers, and are not among the signatories of the Treaty of Greenville, suggesting that by 1795 the Piscataways (1) were among the casualties at Fallen Timbers, (2) had left the region, or (3) had merged their identity with that of other tribes.

19. The caption accompanying the *American Antiquity* (Vol. 34, No. 3, 1969) version of this article is different and contains some inaccuracies: (1) the Conoy village on Heater’s Island was visited by the Governor of Virginia in 1712 (Graffenreid visited in 1712; the Governor never traveled to Heater’s Island, although he did dispatch two separate parties [Vanderasteal/Harison and Straughan/Tilltet] in 1699); (2) shortly after the 1712 visit a smallpox epidemic occurred on Heater’s Island, implying that the island was thereafter abandoned (the only documented outbreak of smallpox was in 1704); and (3) salvage archeology was underway in 1968 (the George Washington University Anthropology Club undertook extremely limited preliminary testing on the site in 1967).
20. Strandberg spoke to the GWU Anthropology Club, showing his aerial photographs and color slides of the region, and thus spawning the club’s interest in Heater’s Island (Snyder [1967:160] thought soil discolorations apparent in one aerial photograph might represent the postmolds from the stockade at “Canavest” [Eugene Scheel (n.d.) also cites a 1960s aerial photograph—in this case infrared—in which the “rotted logs of the fort and cabins remained visible as a dark red outline.”]). Their subsequent fieldwork attracted media attention (Clopton 1967) and, perhaps as a result of the newspaper article, Turkey Tayac (a Piscataway Indian chief from southern Maryland) later spoke to the club about his “simple, somewhat peripatetic life, fishing, trapping and so on—totally remote from the lives of the middle-class suburban white kids he was talking to. But he was a living link to the past, nonetheless” (Snyder, personal communication 2005).
21. The present location of these artifacts, including any field notes generated by the project, is unknown. Snyder (personal communication 2005) does not have them, and current personnel at George Washington University, Department of Anthropology were unable to find any record of them (Alison Brooks, personal communication 2005).
22. An early archeological investigation of Heater’s Island may have occurred in the late 19th century. William Henry Holmes (1897:76-77, 79) describes a cache of rhyolite blades found by Col. W.H. Love “on an island at Point of Rocks, Maryland.” Since this island also contained evidence of “an ancient village-site of considerable extent,” it could be Heater’s Island. The village, however, may not be the Piscataway Fort, but rather an earlier Woodland village (18FR59) situated at the southern end of the island. Confusing the matter is W.H. Love’s (c. 1894) map which seems to indicate the island is Paton Island, just upriver from Heater’s Island; however, no known village (or any site, for that matter) is recorded on Paton Island.

The existence of the site has long been known to local residents and amateur archeologists, but it is unknown how much unstructured excavation has taken place at the site. E. Ralston Goldsborough (1937a) relates, “While there are a few chips present on this site there is a noticeable absence of chipped implements.” He (Goldsborough 1937b) further adds, “Within recent years the island has suffered much from the flood waters of the Potomac [the record flood of March 1936 reached 41.03 feet, completely submerging Heater’s Island and its structures, as well as destroying the Point of Rocks bridge]. Much silt has been deposited, and according to the present owner the upper end has been worn away and the lower end built up. Undoubtedly much valuable material lies beneath this deposit which has formed largely since the Indians left and the timber has been removed.”

In more recent times, Gross (1970:notes for 8/11/70) relates that Capt. Arthur F. Johnson (a member of the Archeological Society of Virginia) visited the UMCP excavations, stating that he had previously dug on the site. (Johnson had also assisted the GWU crew during their 1967 testing [Snyder 1967:161].) According to Johnson, he believed his excavations were “at the edge of the woods in the northeast area of the present grid.” It was here that he “uncovered a personal cache pit 8"-10" in diameter that contained several sheets of copper, some beads, and two whole iron knives.” Johnson was uncertain about what had happened to the artifacts.

23. Apparently the 1970 field school was divided into two crews, with one crew (generally 15-20 people) assigned to the work on Heater’s Island, and one crew carrying out work in Prince Georges County. This labor division was fluid, however, especially with students drawn off the Piscataway Fort project to assist with the more labor-intensive work at Heater’s Island (Robert Wall, personal communication 2005; Gross 1970:notes for 7/22/70).
24. The photographic survey of the island was recorded on color slides. These slides are mounted in at least four distinct types of slide mounts, only one type of which is dated (February 1970). Traces of snow near the farm complex on the island confirm this approximate time period. An August 10, 1970 note from Vera Rollo reads, “Dear Mr. Schuyler, The flight went off very well. The weather was better than on the first flight....Here is the official bill for your files.” Schuyler paid this bill (\$14.00) on August 19, 1970. Clearly two flights were chartered over the island, and it was hoped that one flight may have occurred while the excavations were open, but Schuyler (personal communication 2005) is certain that the flights preceded any fieldwork; none of the slides show any excavation units, or any corn in the field, for that matter. [Vera Foster Rollo, PhD, is an aviator, an author specializing in Maryland history and aviation, and publisher of the Maryland Historical Press.]
25. The exact location of these test pits (or any of the excavation units, for that matter) could not be reconstructed because the 1970 datum point has not been relocated. This datum—originally 2 stakes pounded into the ground and later presumably replaced by a steel pipe set in concrete (Gross 1970:notes for 8/12/70)—was situated in “the bump in the woods.” Even in the summer of 1970, confusion over the locations of the seven test pits dug in March was apparent. Several excavation units were laid out with the expectation of uncovering earlier test units, but none succeeded. Perhaps the closest encounter was along the south wall of square 15S45W where what was thought to be the corner of Test Pit #4 and an old wooden stake were exposed (Gross 1970:notes for 8/6/70). Subsequent excavation of 20S45W, while revealing two additional wooden stakes, disproved the notion that Test Pit #4 had been found (it was discerned that a small rectangular stain straddled the line between 15S45W and 20S45W [Gross 1970:notes for 8/14/70 and 8/17/70]). Nonetheless, given that Gross expected Test Pit #4 in this general location and because 3 wooden stakes (presumably from a March test unit) were encountered here, the area just outside 20S45W is presumed to be the location of Test Pit#4 and served as the basis for approximating the other test pit locations shown in Figure 9.
26. Latrine Pit #1 was a 3.5 x 3.5-foot unit excavated “in the woods at the NW end of the grid” (Gross 1970:notes for 6/24/70). Apparently this pit was abandoned due to the density of artifacts (glass trade beads, metal, animal bones) encountered. A second latrine (Latrine Pit#2) “toward the S/W corner of the grid” was also a “failure in terms of getting the latrine in operation” as postmolds were encountered at a depth of about two feet. A third (and final?) latrine pit was placed “way back in the woods,” presumably well off the site (Gross1970:notes for 6/29/70).
27. It is clear that more formal mapping is missing. Gross (1970:notes for 8/20/70) states “What we have been doing is setting up the plane table and having one person (Ross Englehart) plot the postmolds and features as they are analyzed.” Later, discussing Feature 1, Gross reports “a very good drawing was made of this feature by Ross Englehart, including all the artifactual materials.” In addition, Bob Wall (personal communication, 2005) recalls Englehart manning the plane table in the field and, later in the lab following the close of fieldwork, preparing final versions of feature maps and an overall site map. Neither Englehart’s plane table maps nor final maps are included in the materials conveyed to the Maryland Historical Trust by Schuyler, and attempts to locate them have been fruitless.

28. The burial was probably removed on August 14, 1970. We know from the photograph (Figure __) that it was in the ground as late as August 13. Bob Wall (personal communication, 2005) recalls that the burial was removed as a block, in its soil matrix, and put in the field truck which had been driven to the island. Gross's field records (1970:notes for 8/14/70) support this assumption: "Today I drove the truck to the site by crashing through the heavy growth on the edge of the field—this afternoon I almost got stuck in the ford when I hit a deep spot—water came in the doors, etc.—It was somewhat unsettling—I will not cross it again until it is clearly mapped out." Presumably Gross had driven out onto the site to load and transport the burial.
29. Robert L. Schuyler wrote from the University of Pennsylvania in an April 29, 1985 letter to Paul B. Cissna (then a graduate student at American University), "indeed, only one isolated and badly disturbed burial was found (no grave goods – at least when it was removed in a dirt block) which is at the University of Maryland (Physical Anthropology)." Schuyler had left the University of Maryland by 1971, and may have assumed the burial was still there in 1985. However, Joe Dent (personal communication, 2006), while an anthropology student at UMCP in 1975, remembers two soil-encased burials in the physical anthropology lab—a dog burial from the Claggett ossuary (18PR40) and a badly damaged, flexed human burial from a context unknown to Dent. The Claggett ossuary was found during the concurrent component of the UMCP's 1970 summer field school. The ossuary was exposed and partially excavated under the direction of Schuyler in 1970, and completed in 1971 under the direction of Melburn D. Thurman (Curry 1999:35-37). It is almost certain that the human burial observed by Dent is the one recovered from Heater's Island in 1970. According to Dent, the two burials and boxes of other materials "disappeared" from the lab during the fall of 1975. This corresponds to the timeframe in which Thurman returned to UMCP to take possession of the Claggett ossuary collection (the skeletal remains of some 280 individuals). It is highly likely that the Heater's Island burial was accidentally taken by Thurman as part of the Claggett collection. Unfortunately, this entire collection suffered greatly as a result of several floods, a fire, and vandalism during the three decades while in Thurman's possession, and the chances of being able to identify the remains from Heater's Island—if they survive—are virtually nil.
30. As early as 1678, two years prior to their relocation to the fort in Zekiah Swamp, the Piscataways claimed that they had forgotten how to make bows and arrows (Archives of Maryland 1896:242).
31. An April 29, 1985 letter from Robert L. Schuyler to Paul B. Cissna comes to similar conclusions regarding the prehistoric ceramics from Heater's Island:

Mel [Thurman] and I both did a superficial examination of the ceramic materials and I have enclosed his conclusions:

Thurman April 15: Ca. 1000-2000+ sherds from Conoy Island. Very few more than fingernail size. Most of these are early sherds: a noticeable Steatite Tempered group, but mostly Cord-Marked sherds which would generally be assigned to (mostly) Accokeek Ware or Stoney Creek Ware. Of the definitely later sherds, the most distinctive and numerous (10 or less sherds) are the Collared or Pseudo-Collared Ware. Some with slight Grit Temper, but most have apparently slight (leached out) Shell Temper. This looks like some material from Montgomery Focus. Also there are a few sherds which might be called Potomac Creek – but these are marginal, not typical, and lack rim pieces which show diagnostic impressed neck designs. No Townsend (or at least typical Townsend) and no Moyaone, and no Colo[no]-Ware. Note, however, almost all (but some Steatite Tempered) pottery from plowzone. There is no assurance of any of this pottery being associated with historic Piscataway.

In summary...there is little, if any evidence of native pottery use during the historic Piscataway occupation (ca. 1699-1715).

32. A student paper (Krauthemer 1973) prepared during Schuyler's initial analysis of the collection calculated the mean pipe date to be 1687.25 (n=150; mean bore diameter=6.393). However, when trying to match lot numbers provided in Krauthemer's paper to actual pipe stems, several minor

discrepancies were noted. As a result, each stem bore diameter was re-measured, providing for the calculated date of 1692.38 presented here.

33. It should be noted that some or all of these gunflints—especially the more irregularly shaped or fragmentary ones—also could have been used as strike-a-lights.
34. By chance, the original field kit from my 1972 field school at the Thunderbird site still contains a plastic container of virtually identical wire brads, which I can well remember precisely setting in wooden survey stakes at the various Flint Run sites. It should be pointed out that Ivor Gross oversaw much of the transit/grid work at Thunderbird complex, where he apparently used tools and techniques similar to those used at Heater's Island two years earlier.
35. This book hinge is identical to one found at the King's Reach site in Calvert County (see Pogue 1990:22). The dates of the King's Reach site—1690 to 1711—overlap the Piscataway occupation at Heater's Island.
36. Dan Guzy (2011:28) questions the feasibility of successfully traversing the Class V+ rapids at Great Falls in a bark canoe, while allowing that the rapids at Seneca Falls might have been possible.
37. I am grateful to Julie King (personal communication, 2010) for both the idea of Seneca–French Jesuit connection, and for the 1705 account from Lt. Charles Beall.
38. Rountree (1990:145) suggests that, among the Powhatan, once firearms were introduced, they were reserved for use by men; boys still used the bow and arrow. While this may have been true, in part, among the Piscataways, the numerous colonial accounts of bow-and-arrow-wielding Indian warriors weaken this argument.
39. Most of the copper triangle specimens are less than 1 mm thick, and several appear bent or curled as if from impact.
40. Snake venom-based arrow poisons were among the most commonly used by North American Indians, and were often enhanced by injecting the venom into animal organs that were then left to putrefy; projectiles treated with this substance are known to have killed large game animals in a matter of hours (Jones 2007). On the other hand, toxins derived from *Cicuta* spp. can induce severe symptoms within 15 to 30 minutes and result in a 30-50% mortality rate (Jones 2007:3).

1970 Crew Members (Figure [72](#))

Pat Barth
Pat Bartolillo
Bruce Bitcover
Jim Davis
Ralph Dean
Carol Denham
Ross Englehart
Steve Feinberg
Mike Geschlecht
Lorna Gold
J. Ivor Gross
Kitty Keller
Robby Lawson
John Liversidge
Munro Meyersburg
Dan Muirhead
Barry Novick

Marshall Ransom
Cassandra Richard
“Dinky” Steiner
Alan Taback
Bob Wall
Sharon Warfield
Rick Wolfinger

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Dedication:

J. IVOR GROSS
(1942 – 2000)

This site report is dedicated to Ivor Gross, who, as a graduate student in the Department of Anthropology at the University of Maryland–College Park (UMCP), directed the 1970 excavations at the Heater’s Island site.

In 1966-1967, Ivor was among the students from the Anthropology Society at UMCP who excavated at the multi-component Pigeon House (Katcef) site in Anne Arundel County, Maryland. In 1968 and 1969, again with UMCP’s Anthropology Society, Ivor directed excavations at Chickadee Rock Shelter near Keedysville in Washington County, Maryland; sporadic work “confined to weekends and holidays” continued at the site until at least 1971, and the results formed the basis of one of two Master’s papers written by Ivor in 1972 (Ivor was awarded an M.A. degree in Anthropology on August 24, 1972; he had previously received a B.A. degree in Anthropology on January 24, 1969; both degrees were from UMCP). In 1969, he served as the site assistant during the joint University of Maryland–American University field school directed by Ellis E. McDowell (then at UMCP) at the deeply stratified Monocacy site in Frederick County, Maryland (Schuyler 1969:3-4); later that summer he assisted with National Park Service-sponsored excavations at the Stout site in Great Falls National Park, Virginia (Gardner et al. 1969). In 1970 and 1971, Ivor participated in the first two meetings of the newly formed Middle Atlantic Archeological Conference. He was one of a handful of students who attended at the urging of William M. Gardner (Catholic University of America), despite the reluctance of some of the conference organizers to admit students. The Heater’s Island excavations took place in the summer of 1970. By 1971, Ivor had moved on to the Thunderbird Paleoindian site in Warren County, Virginia, where he helped supervise excavations for the next four field seasons. By 1972, he was also enrolled as a Ph.D. candidate in the Department of Anthropology at Catholic University. Ivor also assisted in excavations in downtown Harpers Ferry, West Virginia in 1973 (Gardner 1974), where he used his skills with a plane table to create a detailed map of the site excavations. He had previously mapped the late 18th century canal town of Matildaville, Virginia on another NPS project. After leaving Thunderbird and Catholic in 1975, Ivor directed a 1000-acre survey of a proposed pulp mill along the Roanoke River in Halifax County for the North Carolina Archaeology Section—perhaps his final archeological endeavor. During this time, he wrote to Kurt Carr (then also a Ph.D. student at Catholic) that he was using small, portable screens and digging test units every 50 feet in wooded areas—a novel survey technique back in 1975.

One of Ivor’s main interests was stone tool technology. His mentor in this area was Edwin N. Wilmsen. Ivor worked for Wilmsen at the Smithsonian for a year in 1967 and 1968 with Paleoindian materials from Colorado’s Lindenmeier site. Wilmsen impressed on him that artifacts, even unutilized flakes, are not randomly scattered, and that they reflect cultural behavior—everything from reduction stages to social organization. Ivor later worked extensively with chipping clusters from the Thunderbird site, painstakingly refitting flakes from the features in order to reconstruct the original cores. Ivor was also an accomplished flintknapper who used his skills to better understand prehistoric lithic reduction strategies. He was successful in his first attempt at fluting a Clovis point, which he completed in about 30 minutes. He also put his knapping prowess to work in recreating materials and techniques he observed in the archeological record (I remember a number of us from the Thunderbird crew taking turns with a dull hacksaw, trying to cut a moose antler into pieces suitable for flintknapping billets). Ivor was also a consummate field technician, especially talented with a transit and a plane table, and known for the field journals he kept (without the use of his detailed field notes and sketch maps for Heater’s Island [see Figure 10], the present report may not have been possible). He was an eclectic, quiet man. He relished his collection of Zap comic books as much as he did a good chunk of jasper. And he left a lasting memory on those he influenced during his brief archeological career. With time, though, Ivor became disillusioned with academics and, after the 1975 survey in North Carolina, he left the Middle Atlantic

region for the secluded mountains of Oregon. There he managed the Eastwinds Trading Co., a wholesaler of hemp products. James Ivor Gross died on January 30, 2000 in O'Brien, Oregon.

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Key to the 1707 Michel map (from Kemper 1921:2; Stephenson and McKee 2000:44): **A**, Rocks in the River called Potomack, as far as one can ascend in barques and beyond in small boats [Great Falls]. **B**, A spring which flows 60 miles from Annapolis. **C**, First hut which was made to sleep in on the trail on their route. **D**, A river called Quattaro [Monocacy River, Maryland]. **E**, Mountains of Virginia [Blue Ridge and Alleghenies]. **F**, Region of the Mesesipi [Mississippi River]. **G**, Mountains of Cenuntua [the Massanutten range].

Key to the 1712 Graffenried map “Project for the Establishment of a Colony along the Potomak River in Virginia and Maryland” (Todd 1921:391-392): **A**, At the foot of this fall, to the side we wished to build a house and establish a plantation in order to cart merchandise from there. The greatest merchant vessels can sail up to within a half of a quarter of a league of this fall, which is very convenient for commerce. **B**, Just below the falls there is caught a prodigious quantity of the best fish. In the month of May they come there in such numbers that they kill them with a stick. **C***, This island is all cut out of rock. Above it is a very fine and good soil, sufficient to support a whole family. Indians live there. One could make an impregnable fort of it. It is near this island that we set foot on land when we came down this river from Canavest. **D***, Plantation of Colonel Bell, eight hundred acres of land to sell for 168£ Sterling. Very suitable and convenient for our design. From there one goes to Canavest horseback or on foot. **E**, At the foot of this mountain there is a fine hot spring. The Indians esteem it highly and cure themselves of several complaints. **F**, Half way up this mountain there is a very fine spring of cold water. **G**, One can ascend this mountain on horseback very conveniently to within a gunshot of the summit. On the top there is a pretty plain of considerable extent. There are oaks, chestnuts and wild nuts. It is there that we discovered a big extent of country, a part of Virginia, Maryland, Carolina and Pennsylvania. **H**, Island of Canavest, elevated country and very good, where the Indians or savages had planted some fine Indian corn. It is upon this island that we had made the design to establish ourselves at the commencement, as being very well situated to carry on trade in Virginia, Maryland and Pennsylvania. For this reason we had had almost all the good land bordering the river surveyed. **I***, A very curious pond. At a depth of two feet the water is very hot. To get cold water, good to drink, one has to plunge a glass bottle attached to a string down deep, probably four or five feet and then one will get very excellent water cold as ice. **K**, Here we had caused to be marked out six thousand (pauses or) acres of choice land, abounding in and full of sugar trees. These trees are very handsome and are as tall as oaks. They grow only on rich soil. When one makes a blow with an ax into the trunk of the tree there comes out a juice. From three or four pots of this juice boiled in a kettle there remains a sweet substance in the bottom and this is sugar. They make little cakes of it. This sugar is a little grayish and has a taste a little different from that of cane, but good. I used it in tea and coffee and found it excellent. **L**, From Canavest we came down the river to this point in a boat or canoe which the Indians had made of bark, expressly for us. **M**, The Plantation of Mr. Rosier, a good, generous, and polite gentleman, very well settled, where I stayed for some time. **N***, The place where the silver mines were supposed to be, which Mr. M. had proposed to us. **O***, Part of Pennsylvania. **P***, Salt springs, a place where salt water has been discovered. **Q**, Charming island of very fine land and trees, on one side steep rocks, on the other an approach suitable for boats. (Letters marked with “*” are not readily apparent on the map.)

Translation of notations (from Hobbs 1961:116), from downstream to upstream: **M.** Rosier; Colonel Addison; Village where Minister Turkebodem is [a friend of Graffenried’s who lived somewhere near the site of the Washington Monument]; Colonel Beale [at the mouth of “Gold Creek,” now Rock Creek]; Route to Canavest [Wisconsin Avenue and the River Road]; The Rapids or Falls [Little Falls]; “R. Meurier” or Death Creek [Muddy Branch]; “R. des Senecards” [Seneca Creek]; “R. de Hiccari” or Hickory Creek [Goose Creek]; “R. de Coturki” [Monocacy River]; Martin Charetier’s Quarters; Canavest Island [Conoy or Heater’s Island]; Canavest Indian Village [Point of Rocks]; A little pond full of sources of springs; On this River from Canavest to the Falls, there is in winter such a prodigious number of Swans, geese, and ducks that the Indians profit by the feathers.

Table 1. Known “Emperors of Piscataway.”^a

<u>NAME</u>	<u>ALTERNATE NAME</u>	<u>INSTALLED</u>	<u>DEATH</u>	<u>NOTES</u>
Uttapoingasenem		c. 1540		The first known emperor from 13 generations prior to 1634. ^b
Quokenassum		c. 1550		Brother of Uttapoingasenem.
[Eleven unrecorded Emperors ruled over the next 80 years.]				
Wannis	Wannas, Uwanno	by 1634	1636	Met Leonard Calvert at Piscataway Fort (spring 1634). Murdered by Kittamaquund.
Kittamaquund	Chitomachon	1636	1641	Murdered Wannis.
Wahocasso	Weghucasso	1641	c. 2/23/1659	Selected by the English.
Uttapoingasenem		by 12/20/1660	c. 5/15/1662	Selected by the Piscataways.
Wannasapapin		1662?	1662?	Son of Wannis. ^c
Nattawasso	Wahocasso (the Second)	6/1/1663	c. 4/1666	11-year-old son of Wahocasso; was to be married to Wannis’ daughter.
Nicotaghsen		c. 1666	c. 1680-82	
Octomaquath	Othotomaquah, John Accatamacca	by 5/2/1682	1704(?) ^d	At Zekiah Fort in 1682. Signed peace treaty May 14, 1692. ^e Moved to Virginia in 1697. On Heater’s Island by March 1699. With governor in Annapolis, 4/8-9/1700. Sells Mattawoman Branch parcel to John Addison & Wm Hutchison, 10/4/1701.
Old Sack	Canassatoga ^f	by 1743		At Conoy Town in Pennsylvania. Sent letter to Pennsylvania governor via Tho. Cookson, May 1, 1743. ^g
Last Night	Conniack ^h , Kandt ⁱ , Wilakuko ^j	by 1758	after 8/19/1769 “Conoy King” at Shenango. ⁱ as late as 1777 ^j	

^aExtracted from Marye (1935b:191-196) and MacLeod (1926:306).

^b(Archives of Maryland (1885:403)

^cIt is uncertain if Wannasapapin ever served as Emperor. Following the death of Uttapoingasenem, he was elected by the Piscataways, and was to appear before the Governor for appointment. However, it was Nattawasso who was presented to the Governor for appointment on June 1, 1662.

^dCissna (1986:189) interprets the Piscataways’ need to select a new emperor (Archives of Maryland 1906:67) in September 1704 as possible indication that Octomaquath succumbed to the smallpox outbreak on Heater’s Island (reported by Smallwood in December 1704).

^e(Archives of Maryland 1890:317-319)

^f(Landis 1933:122)

^g(Pennsylvania Archives 1851a:656-658)

^h(Pennsylvania Archives 1758:218). It is unclear if “Conniack, Chief of the Conoys” was the same person as “Kandt, alias Last Night, Chief/King of the Conoys” (who was present at the Treaty of Easton on October 8, 1758), or if he was another chief of the Conoys who was at the “private conference...at the house of Adam Johe, in Easton” on October 24, 1758.

ⁱ(Pennsylvania Archives 1852a:176, 558, 655, 1852b:611)

^j(Speck 1927:12, 23)

Table 2. Piscataway timeline.

<u>DATE</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>
1608	Capt. John Smith encounters Native groups along the Potomac River and maps the location of a major [Piscataway] village, <i>Moyaons</i> .	Barbour 1986; Smith 1608
1630-1640	Piscataway Indians were at Piscataway Fort on the south bank of Piscataway Creek (the village visited by Leonard Calvert in 1634 and later Fr. Andrew White), then moved to the mouth of Piscataway Creek at Mockley Point (this “abandoned” fort later served as a Susquehannock Fort in 1675).	Kent 1984:71
June 9, 1680	The Emperor of Piscataway and his people are given leave by the Council of Maryland to settle and erect a fort in Zekiah.	Archives of Maryland 1896:303-304
1681	Piscataways at Zekiah Fort are attacked by Susquehannocks and Senecas.	Kent 1984:72
March 20, 1697	James Stoddert of Prince Georges County visited the Emperor of Piscataway at Zekiah Fort	Archives of Maryland 1899:522
March 25, 1697	A letter from Sir Thos. Lawrence to the Earl of Bridgewater states that the numbers of Indians are greatly reduced due to smallpox (“a distemper they had not before the Europeans came amongst them”), “by their old way of poisoning, which they are very expert in,” and “the greatest cause of all is their being so devilishly given to drinking, especially of Rum.” The control of the Emperor of Piscataway (including the Chapticoe and Mattawoman) is not believed to extend above 80 or 90 Indians.	Archives of Maryland 1905:256
Before June 1697	The Piscataway Indians unexpectedly migrated (from Maryland) to Virginia, and set up a fortified settlement in the Occoquan-Goose Creek valley (visited by William Barton).	Archive of Maryland 1899:520 Chambers 1983
June 8, 1697	Thomas Tench, John Addison, and others of the Maryland Council visited the Piscataway in Virginia to persuade their chief to return to Maryland.	Archives of Maryland 1903:143-146
October 23, 1697	Virginia Governor Sir Edmund Andros reports that the Piscataway Indians from Maryland came to live in Virginia and, despite the governor’s orders to the Chief Officers of Stafford County, have not been persuaded to return to Maryland, remaining “back in the Woods beyond the little mountains” (apparently the Little River or Bull Run mountains).	Palmer 1875:55 Scheel n.d.
November 5, 1698	Residents of Stafford County ask Virginia Governor Francis Nicholson to require that the criminal Esquire Tomm be surrendered by the Emperor of Piscataway, “who now entertains him and protects him from Condigne Punishment.”	Palmer 1875:60

1699	Map by Cadwalader Jones contains the notation “Pifcataway Indians now in the S. forke of Potomack” in the vicinity of Heater’s Island.	In Harrison 1924
March 28, 1699	Virginia Governor Francis Nicholson expresses his desire to meet with the “Emperour of Pifcattaway” and his great men at James City. He instructs the Stafford County Justices of the Peace to send one or more messengers to the Emperor commanding him to appear before the General Assembly on or about May 1, 1699. These same messengers are to gather intelligence on the Piscataway (e.g., their numbers, location, type of fortifications, allies, etc.)	Palmer 1875:62-63
April 12, 1699	The Stafford County Justices of the Peace select “M ^r Giles Vandicastle and M ^r Burr Harrifon, to goe to the Indian (called) Empe ^r of Pascattaway” and deliver the governor’s commands.	Palmer 1875:63
April 21, 1699	Giles Vanderasteal and Bur Harison report to the governor on their trip to “the Empeour of Pifcattaway, att his forte” on what is now Heater’s Island [see complete transcript elsewhere].	Palmer 1875:63-65
November 3, 1699	David Straughan and Giles Tilltet report to Virginia Governor Francis Nicholson on their four-day journey to the Piscataway “Indian fforde” at Heater’s Island (apparently in response to a request from the governor for a status report on the Piscataway, and possibly seeking the return of the Piscataway to Virginia). The Emperor expresses his fear of “ftrange Indians” (Wittowees) and states his willingness to return to Virginia. However, he fears that if he returned, his people would be blamed for any acts carried out by the strange Indians, and therefore is compelled to remain on the island in the Potomac.	Palmer 1875:67-68
June 18, 1700	George Mason reports to Virginia Governor Francis Nicholson the murders of eight persons on the Stafford County plantation of Thomas Barton by a group of 20-30 Indians, believed to have escaped to Maryland.	Palmer 1875:69-70
July 3, 1700	Phill. Haskins and W ^m Dent of Nanjemy [Charles County, MD?] “who had been sent to negotiate with the Emperor,” reports that the Emperor insists the Piscataway did not commit the Barton murders, but suspects the Towittowees. The Emperor “consents to remove his family and property from his ‘fort’ down to Maryland, opposite lower Stafford County, as earnest of his good intentions.” (This report also notes that the Emperor spoke English as well as he spoke the Indian tongue.)	Palmer 1875:70
July 18, 1700	Permission is granted for the Emperor to go to the “Fort of Indians above the Falls on the Maryland side” and return with his wife and children, belongings, and any other Indians willing to come with him by October 1, 1700	Archives of Maryland 1905:102
1701	Conoy (Ganowese) representatives attend a meeting in Philadelphia with William Penn during which they received permission to settle in Pennsylvania.	Kent 1984:72; Archives of Maryland 1904:145-146

September 21, 1704	Cols. Addison, Beale, and Smallwood are ordered to inform the Piscataway Indians that once they select a new emperor, they need to present him to the Governor of Maryland in Annapolis for confirmation, at which time they should pay their tribute and renew treaties.	Archives of Maryland 1906:67
December 7, 1704	Smallwood reported that 57 Piscataways on Heater's Island had died of an epidemic, apparently smallpox.	Archives of Maryland 1906:376-377
1705	Piscataway petitioned the Governor of Pennsylvania for permission to settle in Tulpenhocken.	Feest 1978:246
April 10, 1705	Mention of "Colonell Beals Journall of his Expedition to the Piscattaway Indians" "...Since the Piscattaway Indians have failed to Come in according to Expectation..."	Archives of Maryland 1905:186,187
October 1705	James Logan visits the Piscataway Indians in the Conestoga area (Pennsylvania), presumably at Conejoholo.	Kent 1984:72
1707	Franz Louis Michel's map depicts a longhouse near Heater's Island.	In Harrison 1924
soon after 1711	Piscataway moved to Conejoholo on the Susquehanna River.	Ferguson and Ferguson 1960:43
1712	Last recorded visit to the Piscataway on Heater's Island.	Scheel n.d.
1712	Baron Christoph von Graffenried, in search of a reported silver mine, maps the location of a small Indian village (Heater's Island, called "Canavest") "about 40 miles above the falls of the Potomac" and describes the Indians with which he made an alliance.	Todd 1920:383
1712	Graffenried's map shows "Canavest vill. Ind." at Heater's Island.	In Harrison 1924
1718-1743	Piscataway Indians are at Conoy Town in northwestern Lancaster County, Pennsylvania.	Custer 1996:316; Kent 1984:392; Pennsylvania Archives 1851:656-658
by 1743	Piscataway Indians settle at Shamokin.	Feest 1978:246; cf. Landis 1933:122
1749	Piscataway Indians left Conoy Town to "live among other Nations at Juniata."	Kent 1984:76
1749	Some Piscataway were living with a Nanticoke group at the mouth of the Juniata River.	Feest 1978:246
1755	The Piscataway/Nanticoke from Juniata were at Otsiningo on the Chenango River near Binghamton, New York (considered to be one group/nation by 1758).	Feest 1978:246
July 16, 1761	Nine "Conays" (along with 51 Onondagos, 37 Quioges, 37 Nanticocks, 20 Futales, 26 Mohecans, and 8 Shawanos) were reported living at Bethlehem, Pennsylvania	Pennsylvania Archives 1761:61

1793

Last appearance of Piscataway as a tribe was at a conference in Detroit. They used a wild turkey as their signature; only 50 Piscataway were left at that time.

Ferguson and Ferguson 1960:43
(but see footnote #17)

Table 3. Projectile points and bifaces from Heater's Island.

<u>DESCRIPTION</u>	<u>LITHIC MATERIAL</u>	<u>DIMENSIONS (MM)</u>			<u>NOTES</u>	<u>REFERENCES</u>
		<u>L</u>	<u>W</u>	<u>T</u>		
Lamoka (base)	rhyolite	11*	17	6	Fig. 22a	Ritchie 1971:29-30, 82-85
Brewerton Side-Notched	rhyolite	38*	20	7	Fig. 22b	Ritchie 1971:19-20 Kinsey 1972:404-405
Calvert/ Shriver Expanded Stem	quartzite	49	24	9	Fig. 22c	Stephenson et al. 1963:143-144; Kinsey 1972:419-420
Rossville	grey quartzite	38	20	8	Fig. 22d	Ritchie 1971:46 Kinsey 1972:435-436
Jack's Reef Corner-Notched	yellow jasper	35*	24	6	ground base Fig. 22e	Ritchie 1971:26-27 Kinsey 1972:437-438
Levanna	grey chert	34	23*	7	Fig. 22f	Ritchie 1971:31-32
	quartzite	36*	28*	7	Fig. 22g	Kinsey 1972:441-442
	smoky chalcedony	29*	21*	7	Fig. 22h	
Madison	grey chert	22	19*	4	Fig. 22i	Ritchie 1971:33-34
	quartz	19*	19*	5	Fig. 22j	Kinsey 1972:442-443
	quartz	23*	17*	4	Fig. 22k	
Biface	rhyolite	75	25	13	Fig. 22l	
Trianguloid biface	rhyolite	41*	23	9	Fig. 22m	
Stemmed biface	rhyolite	47	29	6	Fig. 22n	
Ovate biface	rhyolite	46	31	12	Fig. 22o	
Ovate biface	dark grey chert	29*	15	8	Fig. 22p	
Ovate biface	tan chert	22	11	6	Fig. 22q	

*broken specimen/incomplete measurement

Table 4. Stone debitage from Heater's Island.

<u>MATERIAL</u>	<u>FLAKES</u>	<u>CHUNKS</u>
Chalcedony (smoky/honey)	61	
Chert (pink/tan/cream)	41	
Chert (dark grey)	12	1
Chert (light grey)	16	
Flint (grey)	15	
Flint (honey)	5	
Jasper	10	1
Quartz	769	78
Quartzite	30	
Rhyolite	45	
Schist	4	
Siltstone	2	
Soapstone	<u>3</u>	<u>2</u>
	<u>1013</u>	<u>82</u>
		1095

Table 5. Native ceramics from Heater's Island.

<u>DESCRIPTION</u>	<u>QTY.</u>	<u>% BY COUNT</u>	<u>WEIGHT (g)</u>	<u>% BY WEIGHT</u>	<u>WEIGHT/SHERD (g)</u>
Marcey Creek	9	0.42	144.9	5.01	16.1
Selden Island	20	0.94	58.8	2.03	2.94
Accokeek	68	3.18	299.6	10.35	4.41
Page	118	5.52	397.7	13.74	3.37
Shepard	324	15.15	815.1	28.16	2.52
Keyser	19	0.89	93.0	3.21	4.89
Potomac Creek/Late	149	6.97	233.5	8.07	1.57
Unidentified	104	4.86	173.3	5.99	1.67
Sherdlet	354	16.56	311.0	10.74	0.88
Crumb	972	45.46	366.3	12.66	0.38
Sandy Paste Coil	<u>1</u>	<u>0.05</u>	<u>1.2</u>	<u>0.04</u>	<u>1.2</u>
	2138	100.0	2894.4	100.0	AVG = 1.35

Table 6. Native ceramics assigned to ware types.

<u>WARE</u>	<u>QTY.</u>	<u>%</u>
Marcey Creek	9	1.27
Selden Island	20	2.83
Accokeek	68	9.62
Page	118	16.69
Shepard	324	45.83
Keyser	19	2.69
Potomac Creek/Late	<u>149</u>	<u>21.07</u>
	707	100.0

Table 7. European ceramics from Heater's Island.

<u>WARE DESCRIPTION</u>	<u>QTY.</u>	<u>TOTAL</u>
Earthenware		
<i>Manganese Mottled</i>		
basal sherd, tankard	2	
flat dish with footring	1	
body sherd	<u>24</u>	
		27
<i>Staffordshire Slipware</i>		
fine-combed body sherd	8	
trailed body sherd	11	
marbled body sherd	<u>3</u>	
		22
<i>Tin-glazed Earthenware</i>		
undecorated rim/neck sherd	1	
undecorated body sherd	19	
body sherd with blue decoration	<u>1</u>	
		21
<i>Olive Jar</i>		
basal sherd with interior green glaze	1	
body sherd with interior green glaze	<u>3</u>	
		4
<i>Lead-glazed Coarse Red Earthenware</i>		
rim sherd, dark brown-reddish brown interior glaze	1	
body sherd, dark brown-reddish brown interior glaze	50	
rim sherd, lighter brown-greenish brown interior glaze	1	
body sherd, lighter brown-greenish brown interior glaze	11	
body sherd, green exterior glaze, brown interior glaze	6	
body sherd, brown exterior glaze	2	
rim sherd, brown interior and exterior glaze	1	
body sherd, brown interior and exterior glaze	1	
basal sherd, unglazed	1	
body sherd, unglazed	2	
sherdlet	<u>35</u>	
molded applique(?) with scalloped shell-like motif	<u>1</u>	
		112
<i>"Local" Earthenware</i>		
body sherd, green interior glaze	5	
body sherd, light green to clear interior glaze	1	
body sherd, greenish interior and exterior glaze	1	
body sherd, unglazed	<u>5</u>	
		12
<i>19th Century Whiteware</i>		
body sherd, undecorated	6	
body sherd with thin blue lines on interior	<u>1</u>	
		7
Stoneware		
<i>Rhenish Stoneware</i>		
basal sherd, brown salt-glazed	1	

body sherd, brown salt-glazed	25
body sherd, grey salt-glazed	8
body sherd, grey salt-glazed, with cobalt blue	1
body sherd, grey salt-glazed, sprig-molded, with cobalt blue	8
body sherd, grey salt-glazed, sprig-molded, with cobalt blue & manganese purple	4
body sherd, grey salt-glazed, with manganese purple	1
	<u>1</u>
	48
<i>Miscellaneous Stoneware</i>	
body sherd, grey salt-glazed, with dark brown interior glaze	1
body sherd, yellowish salt-glazed, possibly English Brown	1
	<u>2</u>
Total	255

Table 8. Tobacco pipes from Heater's Island.

DESCRIPTION	BORE DIAM.	COUNT
<i>European-made</i>		
Nearly complete bowl, incised line at rim, w/ 36 mm stem portion	7/64	1
Bowl fragment, incised line at rim	n/a	5
Bowl fragment, rouletted at rim	n/a	6
Bowl fragment, undecorated	n/a	378
Bowl/stem junction	6/64	1
Bowl/stem junction (bore diameter unmeasurable)	n/a	4
Heel	n/a	1
Heel, flared	n/a	1
Stem, with heel	5/64	1
Stem, with heel	6/64	2
Stem, with heel	8/64	1
Stem	5/64	33
Stem	6/64	50
Stem	7/64	59
Stem	8/64	6
Stem fragment (bore diameter unmeasurable)	n/a	42
Pewter stem, 70 mm long, 7.5 diameter	5/64	1
<i>Native American-made</i>		
Nearly complete bowl, greyish clay, undecorated	7/64	1
Rim fragment, red clay, apparent 8 mm plain collar	n/a	1
Rim fragment, red clay, undecorated	n/a	1
Bowl fragment, greyish clay, rouletted geometric design	n/a	1
Bowl fragment, red clay, triangle-and-dot and roulette decorated	n/a	1
Bowl fragment, grey clay, small dots impressed in a line	n/a	1
Bowl fragment, grey clay, undecorated	n/a	1
Bowl/stem junction, grey/red clay (bore diameter unmeasurable)	n/a	1
Bowl/stem junction, red clay	9/64	1
Stem, grey clay	13/64	1
Stem, grey clay (bore diameter unmeasurable)	n/a	1
Stem fragment, red clay	n/a	1
Total		604

TABLE 9. Glass beads from Heater's Island.

<u>QTY.</u>	<u>TYPE^a</u>	<u>DESCRIPTION</u>	<u>FIGURE</u>
2	Ia2	medium tubular opaque black	43
1	Ia9	medium tubular bright mint green	45aa
1	Ia14	medium tubular opaque robin's egg blue	45gg
1	If5	large faceted amethyst	45v
1	IIa1	medium round opaque redwood, eroded	45m
78	IIa6	very small round opaque black (seed bead)	43,44
49	IIa6	medium round opaque black	43
7	IIa6	large round opaque black	43
5	IIa7	medium circular opaque black	43
47	IIa13	very small round opaque white (seed bead)	44
3	IIa13	medium round opaque white	45j,n,y
1	IIa23	medium round bright mint green	45q
4	IIa36	small round opaque aqua (seed bead)	44
1	IIa42	medium tubular opaque robin's egg blue, eroded	45p
7	IIa43	very small round translucent brite blue (seed bead)	44
1	IIa46	medium round opaque shadow blue	45dd
1	IIa55	large tubular bright navy	45g
1	IIb18	medium round clear with opaque white stripes (gooseberry)	45l
1	IIb64	large tubular dark shadow blue with 1 white and 1 redwood stripe	45k
2	IIb67	large tubular dark shadow blue with 2 white stripes	45i,s
2	IIbb27	medium round bright navy with redwood on white stripes	45e,bb
2	IIIa3	small tubular opaque redwood with translucent apple green core	43
2	IVa1	very small round opaque redwood with black core (seed bead)	44
45	IVa2	very small round opaque redwood with clear light greenish-gray core (Cornaline d' Aleppo, seed bead)	44
119	IVa5	medium round opaque redwood with translucent apple green core(Cornaline d' Aleppo)	43
1	IVa7	large oblong opaque redwood with translucent apple green core (Cornaline d' Aleppo)	43
1	IVa*	small round opaque redwood with slightly lighter core	45o
2	IVbb1	medium round opaque redwood with translucent apple green core with black on white stripe	45h
1	WIIc5	large 5-sided faceted amber	45f
1	WIIe8	large bright navy melon	45w
6		large 4-sided faceted clear	45a,b,d, u,cc,ff
1		large 4-sided faceted blue	45x
1		medium translucent pale blue faceted with concentric striations	45t
1		medium faceted translucent pale blue	45c
1		medium faceted translucent yellowish	45r
1		large striated tubular (bulged in the middle) opaque white fragment, faceted clear	45ee 45z

402

^aAs classified according to Kidd and Kidd (1970) [*indicates a variation which does not conform exactly to the description in the Kidd classification].

Table 10. Lead shot from Heater's Island.

<u>CALIBER</u>	<u>QTY.</u>	<u>WITH SPRUE</u>	<u>WITH MOLD SEAM</u>
.20	5		
.25	2		
.25?	2		
.30	29	6	1
.35	2	1	
.35?	1		
.50	3	1	
.50?	1		
.55	1		
.56	3		
.56?	3		
	<hr/> 52	<hr/> 8	<hr/> 1

Table 11. Gunflints from Heater's Island.

	<u>BLADE TYPE</u>	<u>SPALL TYPE</u>			<u>FRAGMENT</u>
	<u>PRISMATIC</u>	<u>ROUNDED BACK</u>	<u>ROUNDED BACK FRAGMENT</u>	<u>RECTANGULAR/RECTANGULOID</u>	
European Flint					
<i>Honey</i>		1	1		5
<i>Light grey</i>		5		2	1
<i>Dark grey</i>		1		3	4
<i>Black</i>		1		1	1
<i>Grey/tan</i>	1	3		1	
Chert (<i>Tan</i>)		5	3		
Chert (<i>Grey</i>)				1	
Quartz		1			
	<hr/> 1	<hr/> 17	<hr/> 4	<hr/> 8	<hr/> 11

Table 12. Faunal remains from Heater's Island (from Moore 2013).

<u>TAXON</u>	<u>COMMON NAME</u>	<u>NISP</u>	<u>WT. (g)</u>
<i>cf. Elliptio complanata</i>	Eastern Elliptio	1	1.5
<i>Bivalvia</i>	Mollusc	12	11.7
<i>Gastropodia</i>	Land snail	15	2.9
<i>Terrapene Carolina</i>	Eastern box turtle	2	2.0
<i>Sternotherus odoratus</i>	Musk turtle	1	2.2
<i>Chelydra serpentine</i>	Snapping turtle	14	10.6
<i>Trachemys scripta</i>	Pond slider	1	5.1
<i>cf. Trachemys scripta</i>	Prob. Pond slider	4	3.3
<i>cf. unidentified Testudines</i>	Prob. UID turtle	2	1.8
<i>Unidentified Testudines</i>	UID turtle	73	14.5
<i>Columbidae</i>	Prob. Dove	1	0.2
<i>Unidentified Aves</i>	UID bird	17	2.6
<i>Scalopus aquaticus</i>	Eastern mole	2	0.3
<i>Rattus sp.</i>	Prob. Black rat	10	2.0
<i>Didelphis virginianus</i>	Virginia opossum	1	0.0
<i>Procyon lotor</i>	Raccoon	1	0.8
<i>Canis familiaris</i>	Dog	5	9.3
<i>Canidae</i>	UID canid	2	1.5
<i>Ursus americanus</i>	Black bear	1	1.0
<i>cf. Ursus americanus</i>	Prob. Black bear	2	5.5
<i>Carnivora</i>	UID carnivore	1	0.1
<i>cf. Odocoileus virginianus</i>	Prob. Whitetail deer	5	11.5
<i>Odocoileus virginianus</i>	Whitetail deer	96	327.0
<i>cf. Sus scrofa</i>	Prob. Pig	1	0.8
<i>Sus scrofa</i>	Pig	4	4.0
<i>Homo erectus</i>	Human	1	0.3
<i>Unidentified Small Mammal</i>		4	1.1
<i>Unidentified Mammal</i>		270	64.3
<i>Unidentified Medium Mammal</i>		137	159.5
<i>Unidentified Med/Lg Mammal</i>		2	3.6
<i>Unidentified</i>		<u>500</u>	<u>93.6</u>
Total		1188	744.6

Table 13. Colonial-era Native American forts.

<u>FORT/LOCATION</u>	<u>DATE</u>	<u>SHAPE</u>	<u>SIZE</u>	<u>BASTIONS</u>	<u>FEATURES</u>	<u>NO. OF HOUSES</u>	<u>SOURCE</u>
Mystic Fort Mystic, CT	Early 1600s-1637 [Pequots]	circular	2 acres		overlapping concentric circles (palisaded village?)	70 wigwams	McBride (2006a:324-326); Orr (1897:xvii, 105)
Fort Hill North Middleboro, MA	Early 1600s [Nemaskets]	rectangular*	11 x 13 m*		palisade, trench	1 possible inside*; wigwams possible outside fort	Taylor (1976)
Fort Island Block Island, RI	1636-c. 1676 [Manisses]	square	20-25 m*		wattled palisade, low stone wall		McBride (2006b:262)
Fort Ninigret Charlestown, RI	1630s-1670s [Niantics]	rectangular*	56 x 49 m*	3* (NE, NW, SE), all 5-sided	palisade, embankment, trench, stone wall		Taylor (2006:277)
Fort Corchaug Cutchogue, NY	c. 1640-1662 [Corchaugs]	rectangular*	210 x 160 ft* (65 x 49 m)	2 (NW, NE)*	embankment, shallow ditch, 1-3 palisades, palisade trench		Solecki (1950:16)
Fort Massapeag Massapequa, NY	1656-1664* [Massapeags]	square*	100 ft* (31 m)	2 (NW, SE)*	embankment, ditch* 6-10" posts* ^a		Solecki (2006:Figs. 6,7) ^a Smith (1954:68)
Fort Montauk Montauk, NY	pre-1661 [Montauks]	square	180 ft (55 m) ^b or 100 ft ^c	none ^b or "round tower of earth and stone" at each corner ^g	embankment		^b Tooker (2006:243) ^c Prime (1845:91-92) Johannemann & Biladello (2006)
Susquehannock Fort Mockley Point, MD	1675 [Susquehannocks]	square	190 ft* ^d (58 m)	2 known* ^d (4 presumed ^e)	"high banks of earth...and a ditch round all...and a row of tall trees" ^f posts "5 to 8 inches	12 ^e (longhouses?)	^d Ferguson (1941:Fig. 4) ^e Map in British Public Records Office

					diameter, watled 6 inches apart" ^f *		^f Mathew ([1705]:19)
Monhantic Fort Mashantucket, CT	1675-1680 [Mashantucket Pequots]	square*	52 x 58 m*	3 known* (4 presumed), with lookout towers	palisade trench*	1* (min.)	McBride (2006a:323)
Indian Fort at the Flats Albany, NY	1695 ["River Indians" (Mohawks?)]	square		1 (NE), blockhouse in SW corner		5 longhouses 3 soldiers' houses	Miller (1862:30, Fig. 6)
Piscataway Fort Heater's Island, MD	1699-1712+ [Piscataways/ Conoys]	square ^g	50-60 yds ^g (46-55 m)	1* (min.)		18 inside ^g 9 outside (min.) ^g	^g Palmer (1875:63-65)
Fort Hunter Fort Hunter, NY	1711-1720+ [Mohawks]	square	150 ft (46 m)	4 (blockhouses)	squared logs laid horizontally; designed by Dutch engineer Col. Redknap; built by Dutch carpenters		Moody & Fisher (1989:2)
Neoheroka Fort Snow Hill, NC	1712-1713 [Tuscaroras]	square*	46 m*	4 (min.)	blockhouse, trenches, tunnels	17 inside (min.)*	Lee (2004) Heath & Phelps (1998)
Nottoway Fort Nottoway, VA	1728 [Nottoways]	square	100 yds (91 m)		walls 10' high, sloping slightly outward	multiple wigwams	Bassett (1901:95)
Forts of Sir William Johnson New York State	1756 [Senecas, Onondagas, Schoharies]	square ^h	150 ft ^h (46 m)	blockhouses in two opposite corners	walls 12' high, 4' in ground ^h	presumed, based on possible fireplaces ⁱ	^h Beauchamp (1905:115, Fig. 21) ⁱ Bushnell (1919:28, Fig. 1)

*Confirmed by, or based on, archeological data

Table 14. Comparison of material culture at Heater's Island vs. Zekiah Fort.

<u>ARTIFACT CLASS</u>	<u>CONOY FORT AT HEATER'S ISLAND</u>	<u>ZEKIAH FORT</u>
Triangular projectile point, stone	6	1
Gunflint	41	19
Potomac Creek/Late pottery	149	368
Colonial earthenware	198	99
Colonial stoneware	50	17
Terra cotta pipe	12	160
White clay pipe	591	428
Glass bead	402	289
Colonial bottle glass	183	148
Copper button	3	1
Copper tack	3	5
Copper triangular point	35	4
Other copper alloy object	48	56
Lead shot	52	31
Other lead/pewter object	48	32
Iron nail	100	287
Other iron object	75	342
Brick/daub	8	205

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Keep in mind to add:

1. On April 9, 1700, formal Articles of Peace and Amity were signed by the Governor (Blakiston) and the Emperor (Ocquotomaquah), and include this final clause, “And lastly as a full & ample Proof & assurance of the said Emperors Fidelity truth & sincerity he does Solemnly promise engage & oblige himself with his wife & Children to come and Live at pamuncky within two months time from the date hereof & will do his utmost endeavor to perswade all his Indians to come and live there Likewise” (Archives of Maryland 1905:88). This “inability” to dictate where the Piscataway will live speaks to the power of the Emperor. Was it at one time all-powerful, and merely waning at the time of this statement? Or was the Emperor more of a benign leader (perhaps more powerful in the colonists’ eyes than those of the Piscataway) who did not wield total control over his people? In either case, an inability of the Emperor to dictate the Piscataways’ residence helps explain individual Indians’ independence (like Indian George Williams residing on property in Prince Georges County in 1736), isolated pockets of Indians who may have stayed behind in (or returned to) southern Maryland, and the apparent “waves” of migration out of Heater’s Island to Pennsylvania from 1705-1712+.
2. Little is known about the fort at Heater’s Island—or any of the other Piscataway forts (at Piscataway/Kittamaquund, Zekiah, in Virginia, at Rock Creek) for that matter. Vandercastle and Harrison describe the Heater’s Island fort as being 50 to 60 yards on a side, implying that the fort was square, perhaps in the “European style.” In fact, it is likely that the Piscataways may have copied European-style forts, and there is some evidence that the colonists actually helped re-construct the fort at Piscataway (Archives of Maryland 1885:403; see Marye 1935b:204), and their assistance with the Zekiah fort and perhaps the elusive fort at Rock Creek would not be viewed as unlikely. Similarly, the 1675 Susquehannock fort excavated by Alice Ferguson (1941; Stephenson et al. 1963) was clearly a square, European-style fort, complete with corner bastions. Interestingly, the only completely-surviving (west) side of this fort measures about 58 yards long, and the nearly complete south side measures 62 yards; the two bastions measure 19 feet square (Stephenson et al. 1963:80; Fig. 9).
3. At Heater’s Island “cabins” are noted inside and outside the fort---is there similar evidence at Zekiah or in Virginia (check Archives and Calendar of Virginia Papers)



Figure 1. Aerial photograph showing Heater's Island, January 1959.

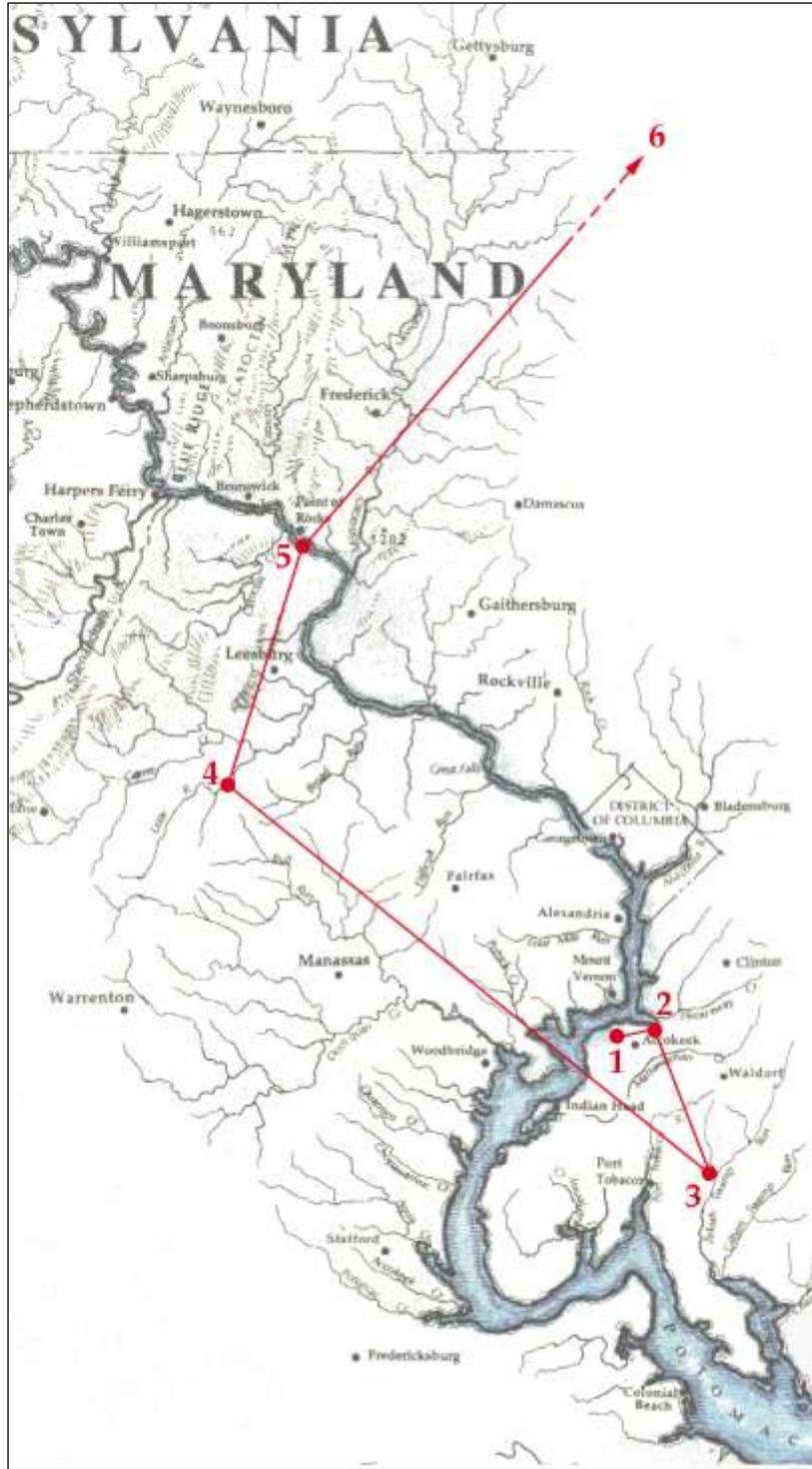


Figure 2. Location of the Piscataways' principal villages from 1608 through the early 1700s.
(Sites known archeologically are designated parenthetically by an asterisk and a trinomial site number. Bracketed names denote recorded visits that help determine a date of occupation.)

1 – Moyaons, 1608 [Capt. John Smith]; 2 – Piscataway Fort/Kittamaquund, ca. 1634 [Gov. Leonard Calvert]-1680; 3 – Zekiah Fort, 1680-1697 [James Stoddert]; 4 – Fort above Occoquan, Virginia, 1697 [Maj. William Barton]-1699; 5 – Heater's Island (*18FR72), 1699 [Cadwalader Jones map/Giles Vandercastle and Burr Harrison]-ca. 1712 [Christoph von Graffenreid]; 6 – Conejoholo and Conoy Town, Pennsylvania (*36LA57), ca. 1705 [James Logan and Old Sack]-ca. 1743

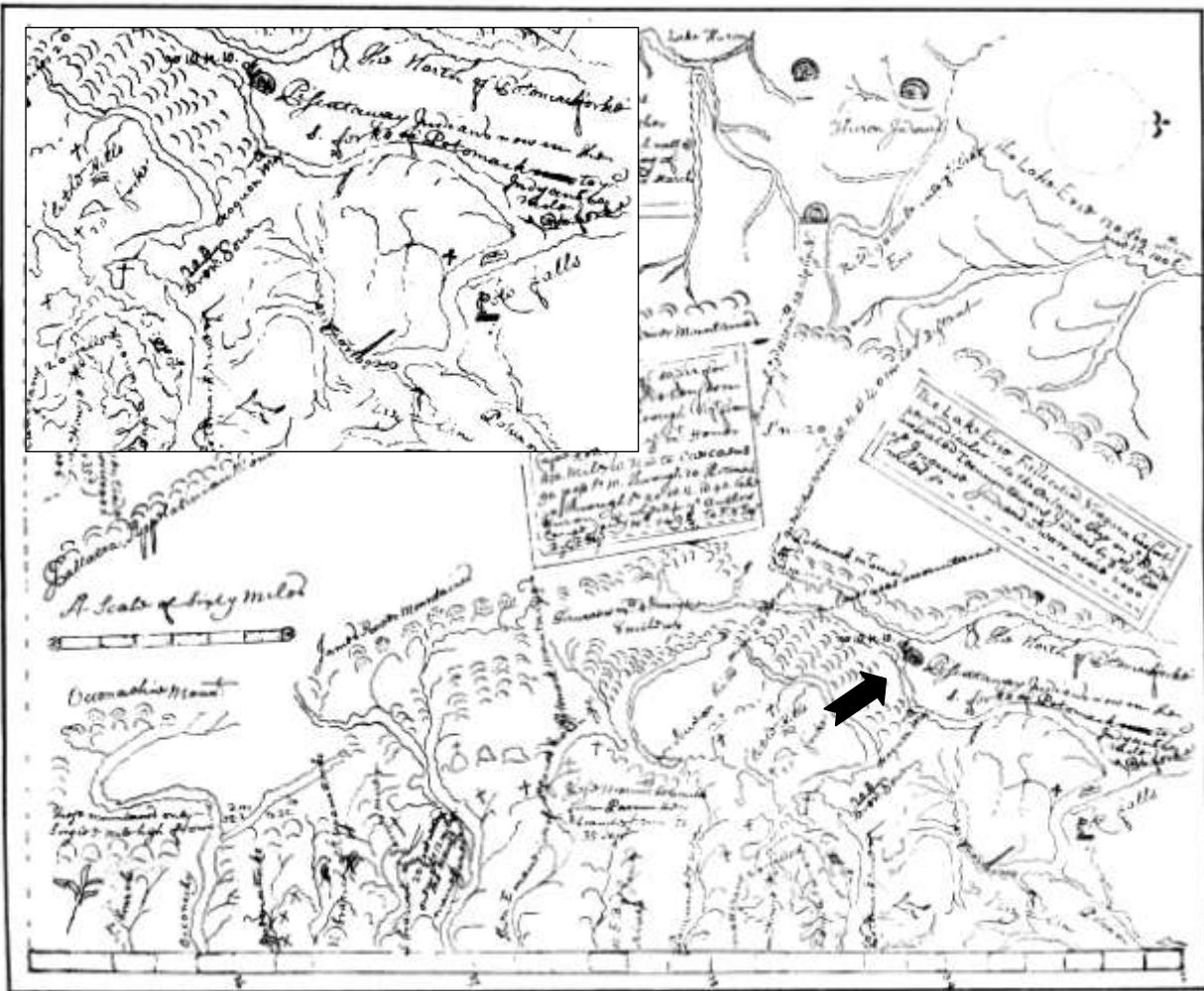


Figure 3. Cadwalader Jones's 1699 map of the Blue Ridge region with inset showing detail "Pifcataway Indians now in the S. forke of Potomac."



Figure 4. Franz Louis Michel's 1707 map of the Potomac above the falls.

KEY (from Kemper 1921:2; Stephenson and McKee 2000:44): **A**, Rocks in the River called Potomack, as far as one can ascend in barques and beyond in small boats [Great Falls]. **B**, A spring which flows 60 miles from Annapolis. **C**, First hut which was made to sleep in on the trail on their route. **D**, A river called Quattaro [Monocacy River, Maryland]. **E**, Mountains of Virginia [Blue Ridge and Alleghenies]. **F**, Region of the Mesesipi [Mississippi River]. **G**, Mountains of Cenuntua [the Massanutten range].



Figure 5. Portrait of Baron Christoph von Graffenried.

KEY to Figure 6 (Todd 1921:391-392): **A**, At the foot of this fall, to the side we wished to build a house and establish a plantation in order to cart merchandise from there. The greatest merchant vessels can sail up to within a half of a quarter of a league of this fall, which is very convenient for commerce. **B**, Just below the falls there is caught a prodigious quantity of the best fish. In the month of May they come there in such numbers that they kill them with a stick. **C***, This island is all cut out of rock. Above it is a very fine and good soil, sufficient to support a whole family. Indians live there. One could make an impregnable fort of it. It is near this island that we set foot on land when we came down this river from Canavest. **D***, Plantation of Colonel Bell, eight hundred acres of land to sell for 168£ Sterling. Very suitable and convenient for our design. From there one goes to Canavest horseback or on foot. **E**, At the foot of this mountain there is a fine hot spring. The Indians esteem it highly and cure themselves of several complaints. **F**, Half way up this mountain there is a very fine spring of cold water. **G**, One can ascend this mountain on horseback very conveniently to within a gunshot of the summit. On the top there is a pretty plain of considerable extent. There are oaks, chestnuts and wild nuts. It is there that we discovered a big extent of country, a part of Virginia, Maryland, Carolina and Pennsylvania. **H**, Island of Canavest, elevated country and very good, where the Indians or savages had planted some fine Indian corn. It is upon this island that we had made the design to establish ourselves at the commencement, as being very well situated to carry on trade in Virginia, Maryland and Pennsylvania. For this reason we had had almost all the good land bordering the river surveyed. **I***, A very curious pond. At a depth of two feet the water is very hot. To get cold water, good to drink, one has to plunge a glass bottle attached to a string down deep, probably four or five feet and then one will get very excellent water cold as ice. **K**, Here we had caused to be marked out six thousand (pauses or) acres of choice land, abounding in and full of sugar trees. These trees are very handsome and are as tall as oaks. They grow only on rich soil. When one makes a blow with an ax into the trunk of the tree there comes out a juice. From three or four pots of this juice boiled in a kettle there remains a sweet substance in the bottom and this is sugar. They make little cakes of it. This sugar is a little grayish and has a taste a little different from that of cane, but good. I used it in tea and coffee and found it excellent. **L**, From Canavest we came down the river to this point in a boat or canoe which the Indians had made of bark, expressly for us. **M**, The Plantation of Mr. Rosier, a good, generous, and polite gentleman, very well settled, where I stayed for some time. **N***, The place where the silver mines were supposed to be, which Mr. M. had proposed to us. **O***, Part of Pennsylvania. **P***, Salt springs, a place where salt water has been discovered. **Q**, Charming island of very fine land and trees, on one side steep rocks, on the other an approach suitable for boats. (Letters marked with "*" are not readily apparent on the map.)

Translation of notations (from Hobbs 1961:116), from downstream to upstream: M. Rosier; Colonel Addison; Village where Minister Turkebodem is [a friend of Graffenried's who lived somewhere near the site of the Washington Monument]; Colonel Beale [at the mouth of "Gold Creek," now Rock Creek]; Route to Canavest [Wisconsin Avenue and the River Road]; The Rapids or Falls [Little Falls]; "R. Meurier" or Death Creek [Muddy Branch]; "R. des Senecards" [Seneca Creek]; "R. de Hiccar" or Hickory Creek [Goose Creek]; "R. de Coturki" [Monocacy River]; Martin Charetier's Quarters; Canavest Island [Conoy or Heater's Island]; Canavest Indian Village [Point of Rocks]; A little pond full of sources of springs; On this River from Canavest to the Falls, there is in winter such a prodigious number of Swans, geese, and ducks that the Indians profit by the feathers.

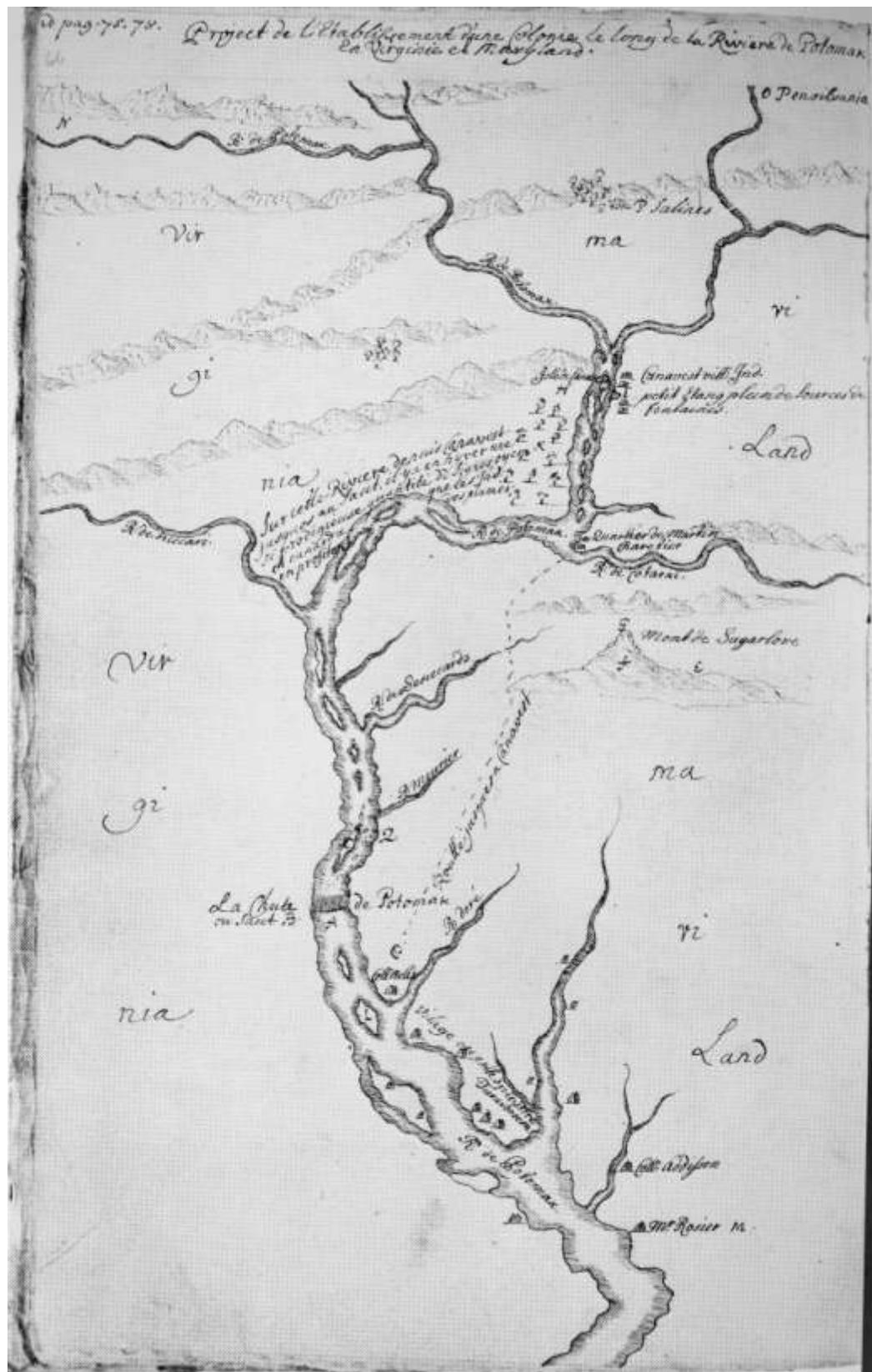


Figure 6. Christoph von Graffenried's 1712 map "Project for the Establishment of a Colony along the Potomak River in Virginia and Maryland" showing "Canavest."

Brothers, we shall be greatly obliged that you mean to do us justice; if you agree that the Ohio shall remain the boundary line between us. — If you will not concur thereto, our meeting will be altogether unnecessary. This is the great point, which we hoped would have been explained before you left your home; so our message last fall was principally directed to obtain that information.

(A) Done in genuine council at the foot of the Miami signed, the 13th day of August, 1793.

Mark

Wyandots,	
Seven Nations of Canada,	
Delawares,	
Shawnees,	
Miamis,	
Ottawas,	
Chippewas,	
Sons of the glane,	
Pontawatamies,	
Connosys,	
Munseys,	
Nantikohas,	
Hochicicas,	

Figure 7. Copy of the signature page of the message from the Western Indians to the Commissioners of the United States, August 13, 1793 (note "Connoys" and their use of the wild turkey mark).



Figure 8. UMCP crew crossing the Potomac River, summer 1970.

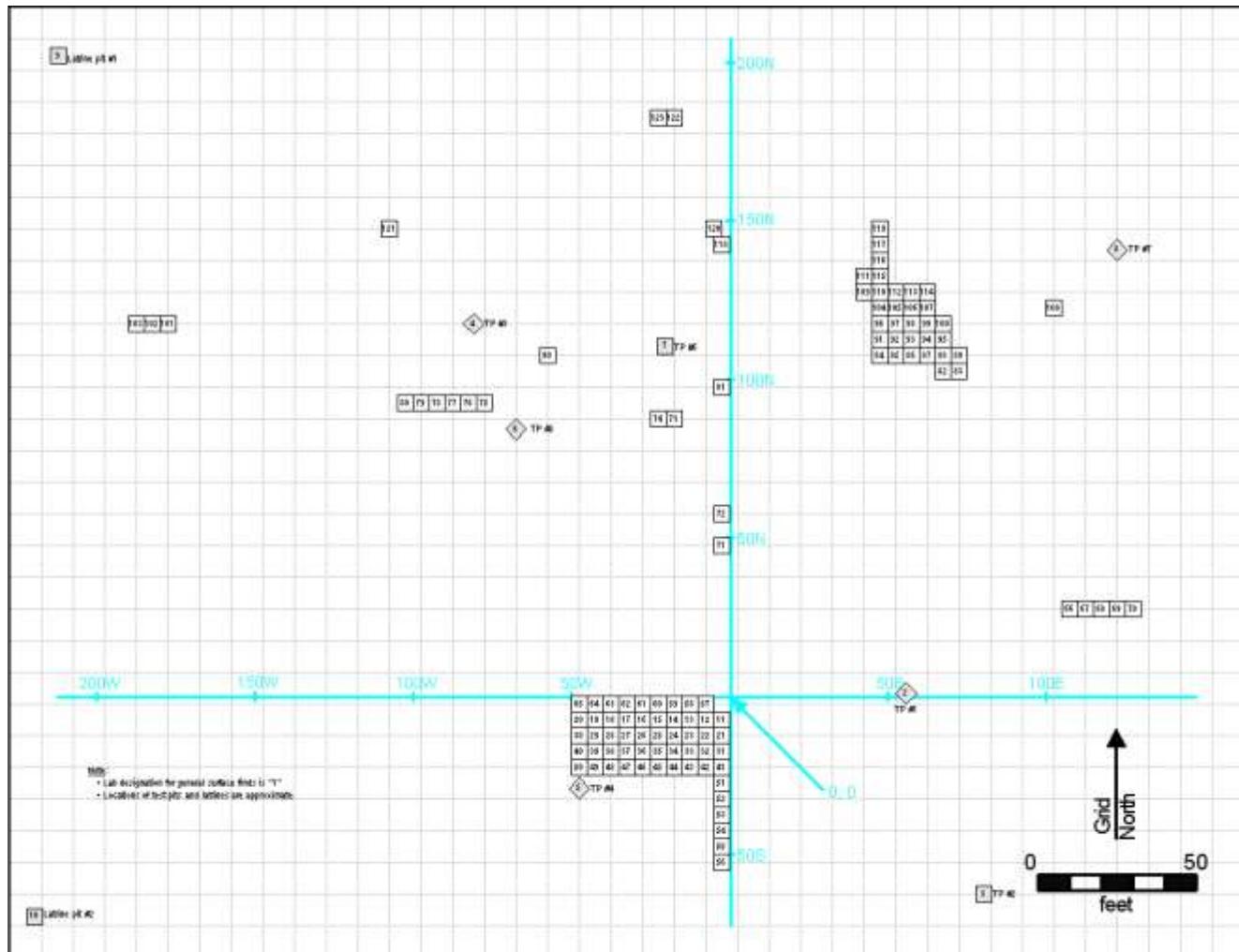


Figure 9. Map of test pits and excavation units, with laboratory numbers.

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Page 1 of 2

1				1	
2	Opened squares 110°W, 50°S, 115°N, 50°S, 120°E, 50°S, 125°E, 50°S and 130°N, 50°S.			2	
3	All the plowzone layers in the above squares are completed except 120°E, 50°S.			3	
4	The plowzones in the above squares have yielded quite a bit of material			4	
5	such as golf links, beauty ash, seeds, shells, market shells, glass,			5	
6	pottery, etc. - - -			6	
7	Charcoal sample No. 1 has been taken from feature #1, in 0°N, 35°W.			7	
8				8	
9	45°S, 0°W has been completed at 21½" B.D. #1. (see diagram)			9	
10				10	
11	0°N, 25°W has been completed at 21½" B.D. #1. (see diagram). There is			11	
12	now long dark striped dissolution in this square that may be a			12	
13	pit or two - we will have to open the adjoining squares to find			13	
14	out.			14	
15				15	
16	0°N, 25°W has been completed at 22½" B.D. #1.			16	
17				17	
18				18	
19				19	
20				20	
21	John Lineside	45°S, 5°W	0°	45°S, 0°W	21
22					22
23					23
24					24
25					25
26					26
27					27
28					28
29					29
30					30
31					31
32					32
33					33
34	P/M #1, discovered at 21½" B.D.	P/M #6 discovered at 20" B.D.			34
35	P/M #2 " 21½" "	X - Potash - Attenite layer at			35
36	P/M #3 " 21½" "	21" B.D. -			36
37	P/M #4 " 20½" "	= The area of dark soil has a very vague			37
38	P/M #5 " 20½" "	definition -			38
39	P/M #6 " 21½" "	- The charcoal concentration is patchy			39
40	P/M #7 " 21" "	at 21" B.D. - The charcoal is of a thin			40
		flaky nature. - no sample taken. -			

Figure 10. Sample page from Ivor Gross's field notes.

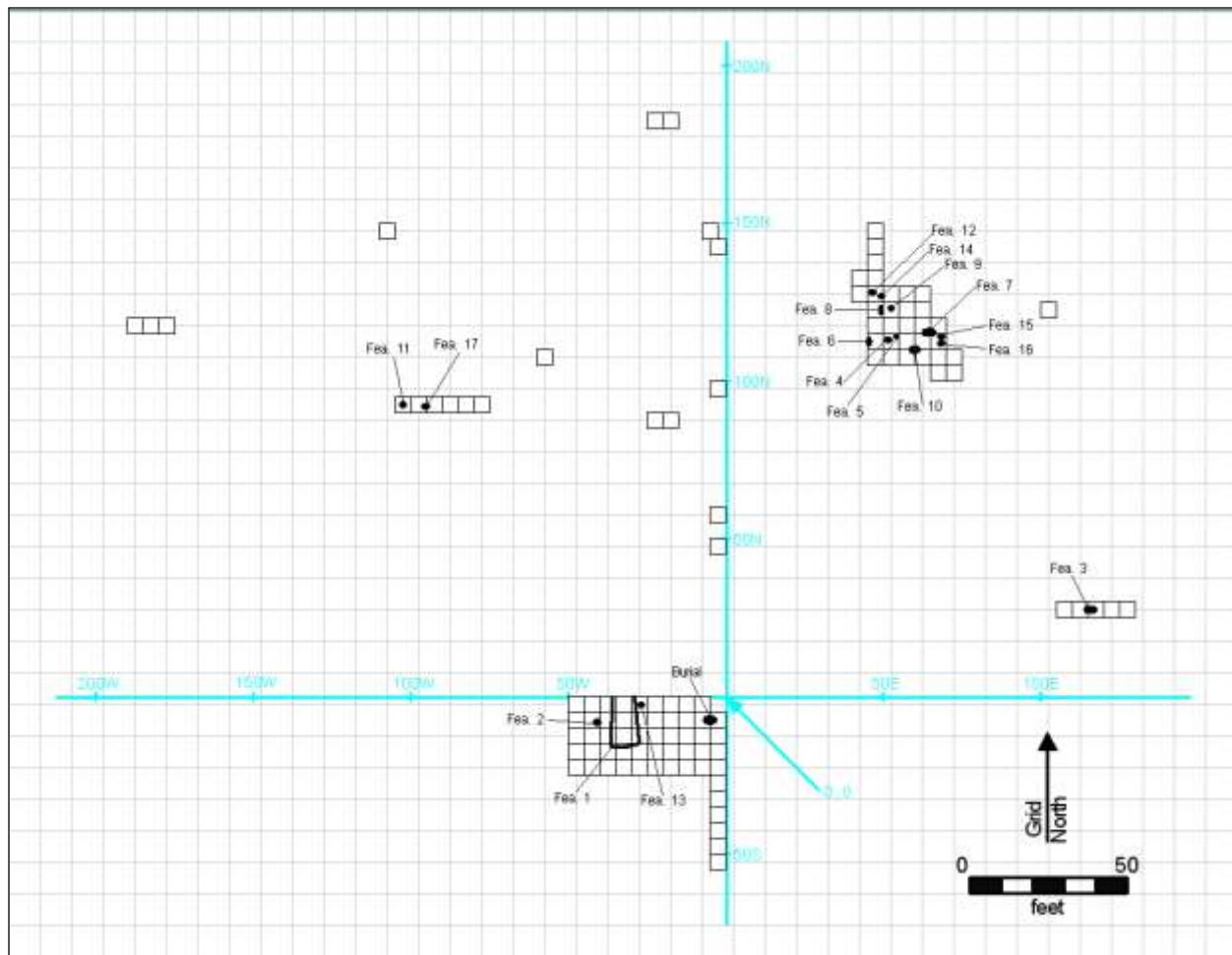


Figure 11. Map of features.



Figure 12. Photograph of Feature 1, unexcavated.



Figure 13. Photograph of Feature 1, excavated.



Figure 14. Photograph of Feature 2, exposed and partially excavated.



Figure 15. Photograph of Feature 2, showing location of hawk's bell and beads.



Figure 16. Close-up of Feature 2, showing hawk's bell and beads in association.



Figure 17. Photograph of Feature 7, excavated, showing copper book hinge. See also Figure 57d.

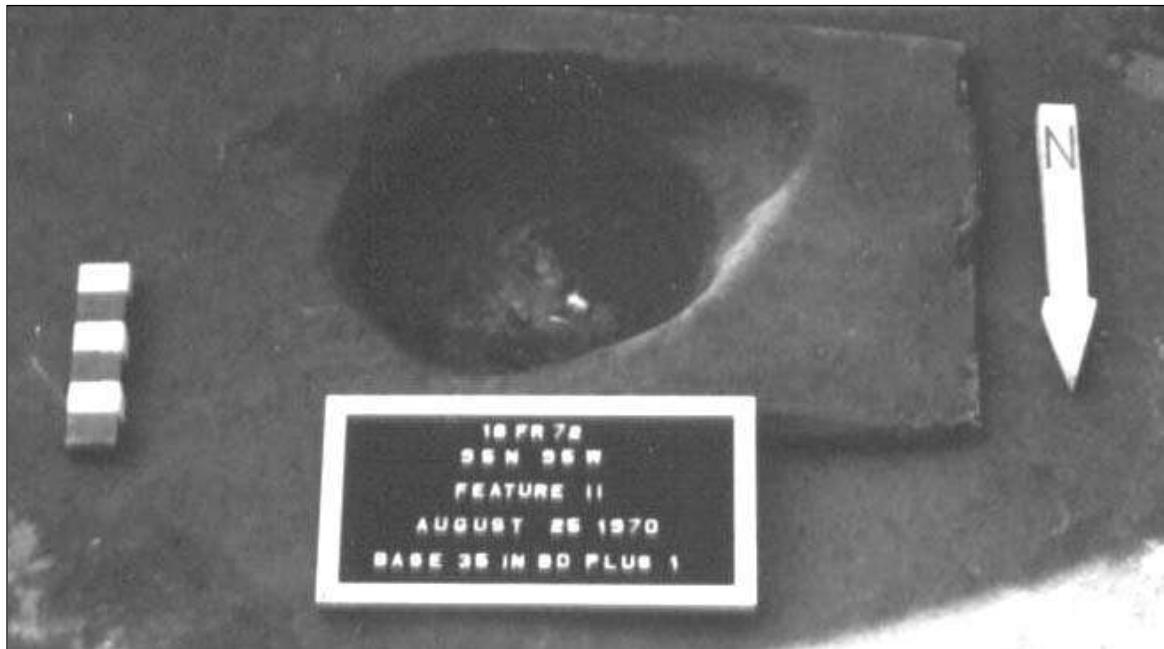


Figure 18. Feature 11, excavated, showing white clay-like material at its base.

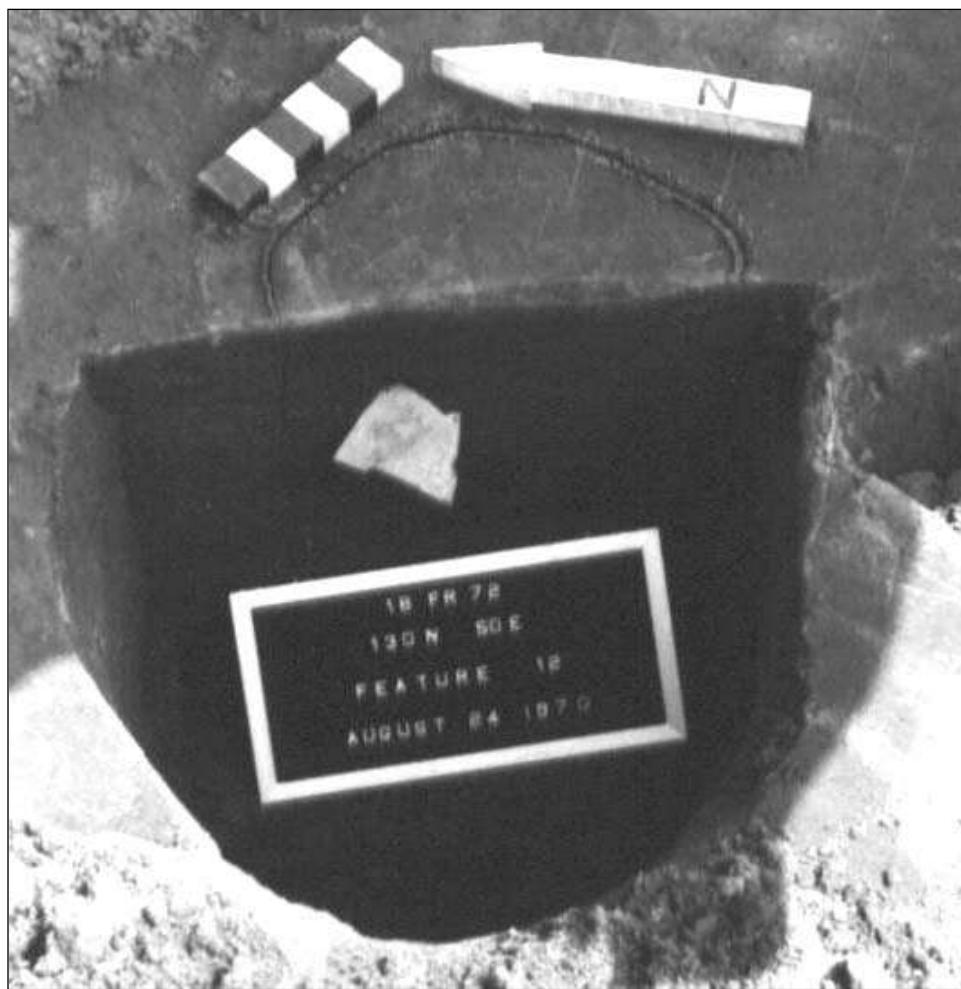


Figure 19. Feature 12, cross-sectioned, showing copper sheet. See also Figure 59a.

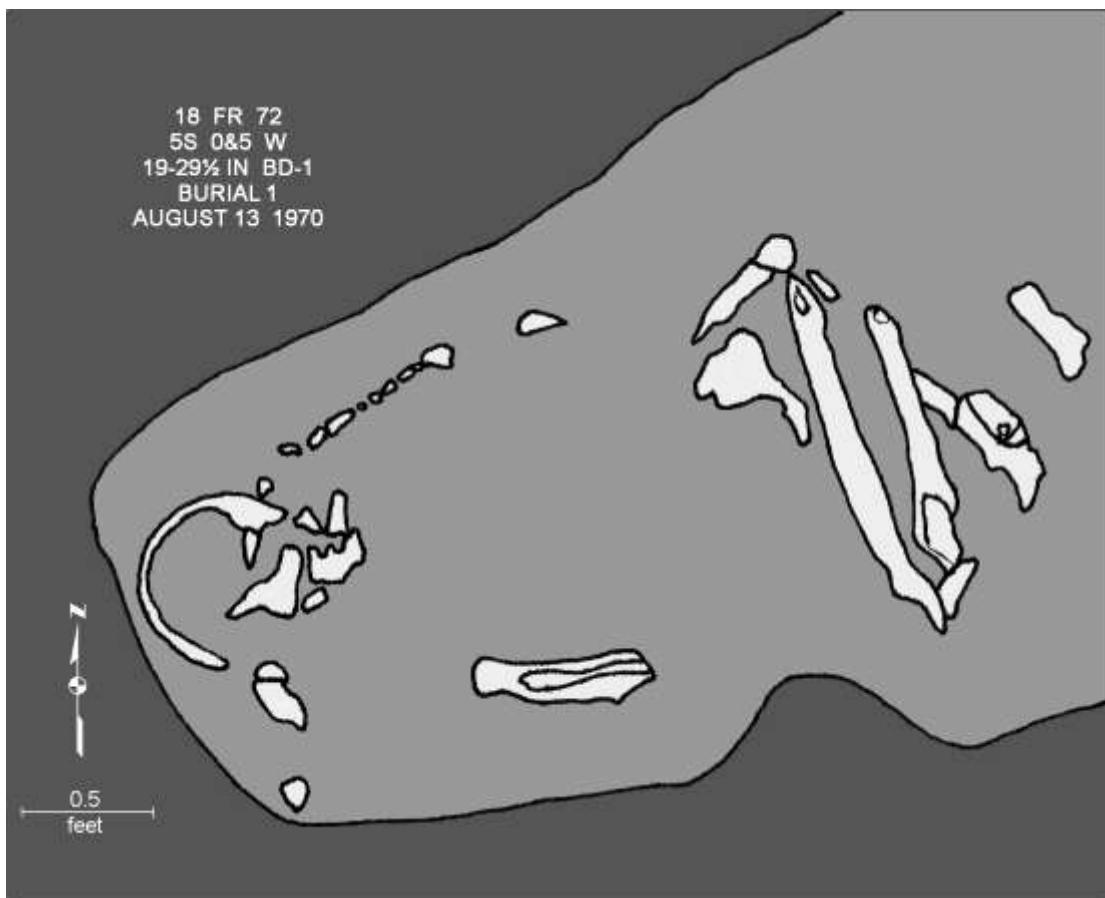


Figure 20. Drawing of exposed human burial in 5S5W and 5S0W (from composite field photographs).

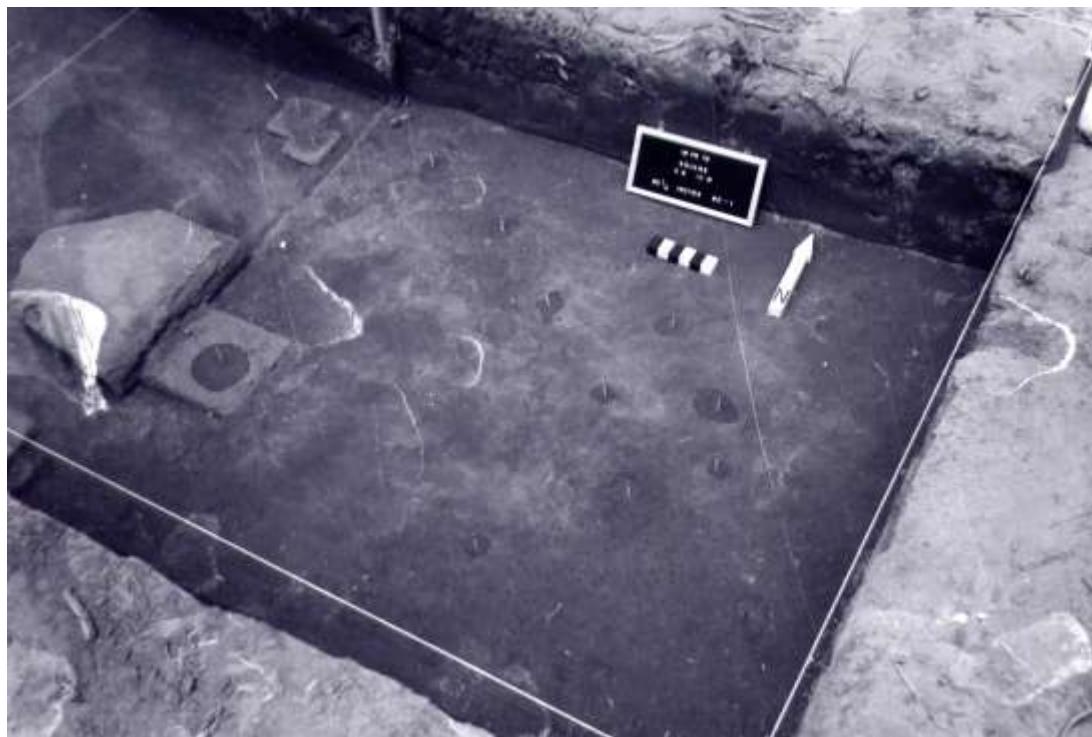


Figure 21. Photograph of possible postmolds in 0N10W



Figure 22. Projectile points and bifaces. *a* – rhyolite Lamoka base; *b* – rhyolite Brewerton side-notched; *c* – quartzite Calvert; *d* – quartzite Rossville; *e* – jasper Jack's Reef corner-notched; *f* – chert Levanna; *g* – quartzite Levanna; *h* – chalcedony Levanna; *i* – chert Madison; *j* – quartz Madison; *k* – quartz Madison; *l* – rhyolite biface; *m* – rhyolite triangular biface; *n* – rhyolite stemmed biface; *o* – rhyolite ovate biface; *p* – chert ovate biface; *q* – chert ovate biface.



Figure 23. Copper/brass triangles. *a* – faces showing burred and filed ring around presumably punched holes; *b* – tip bent by impact; *c* – tip bent 360° ; *Inset* – side view of *b* and *c*.

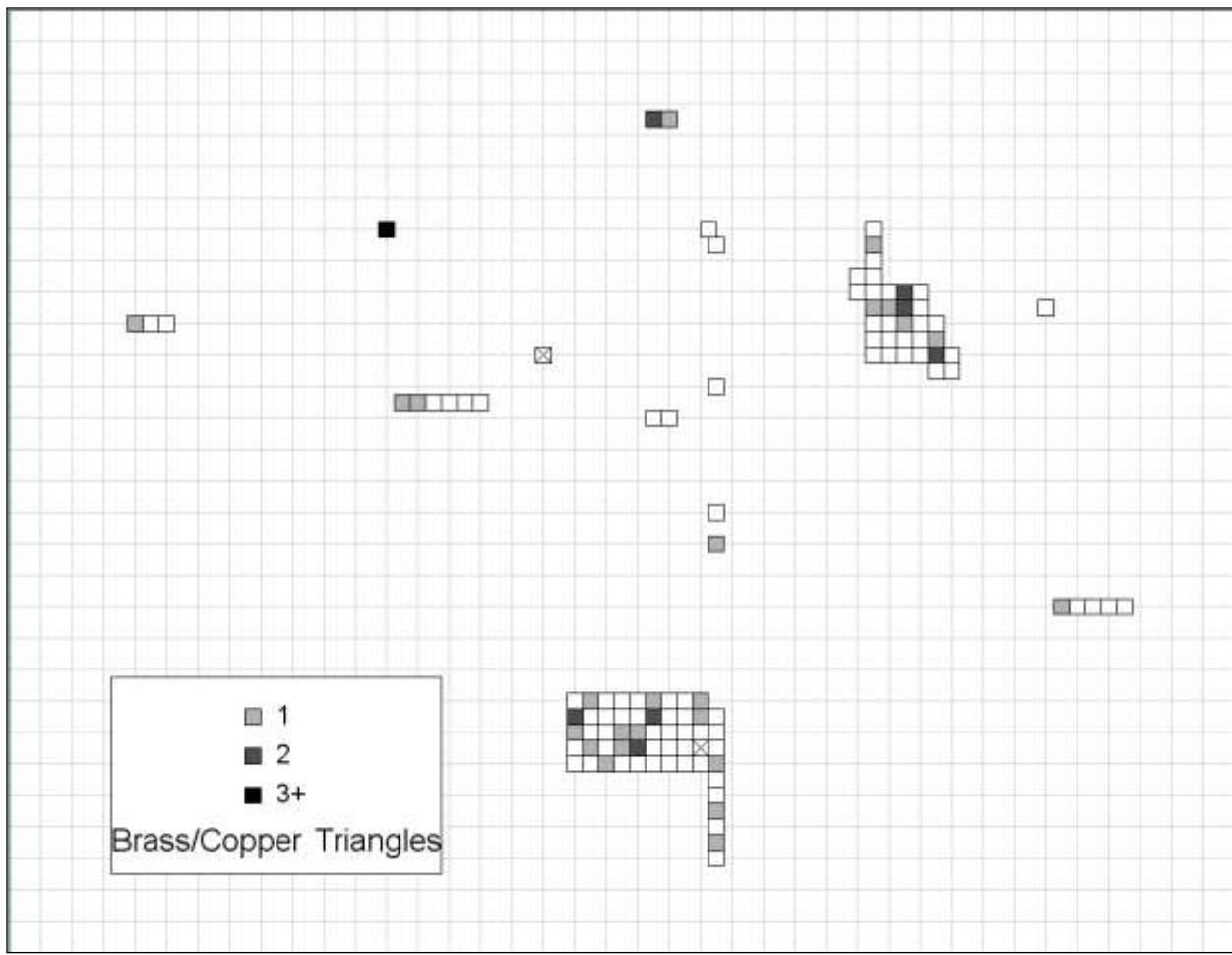


Figure 24. Distribution of brass/copper triangles.

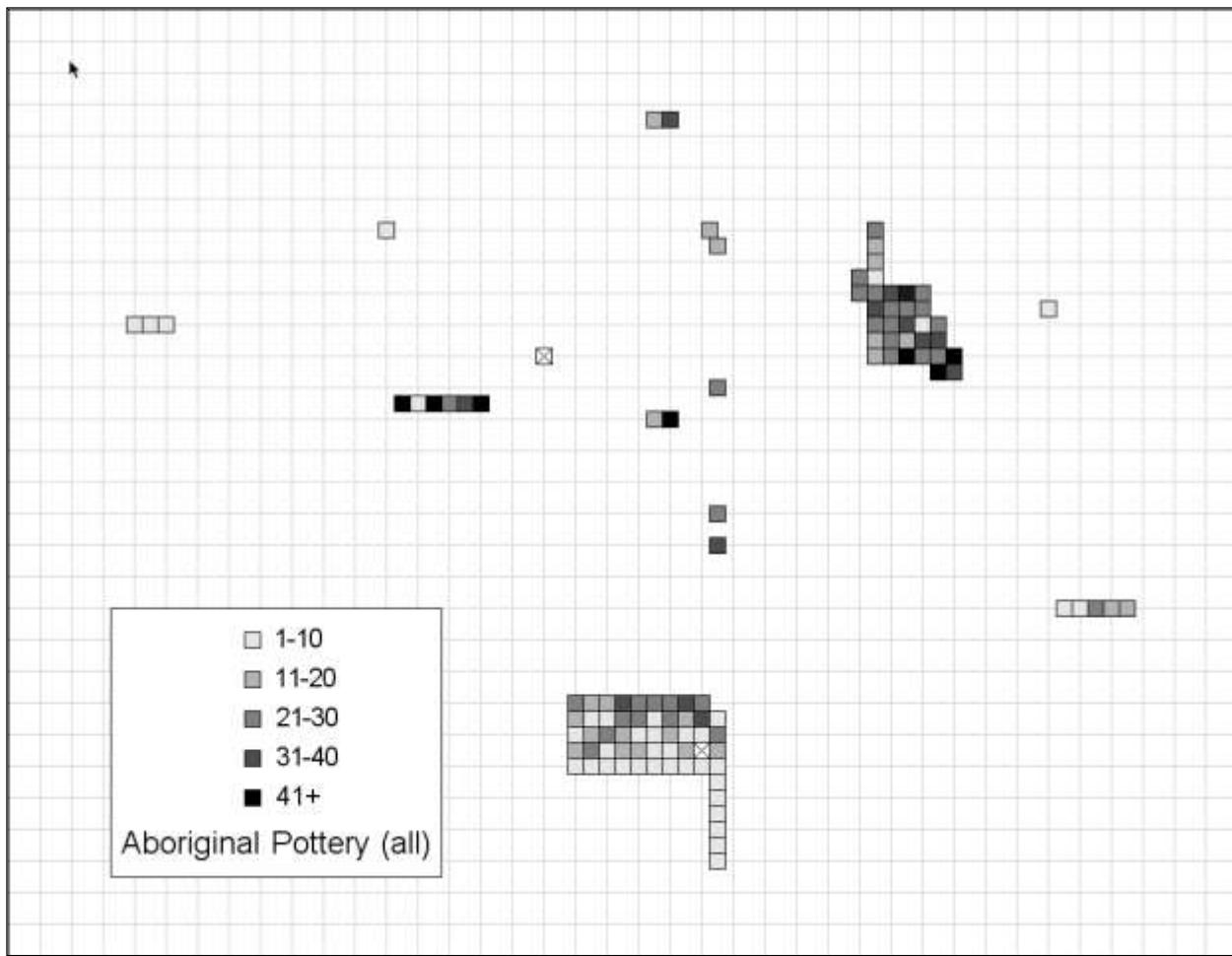


Figure 25. Distribution of aboriginal pottery.

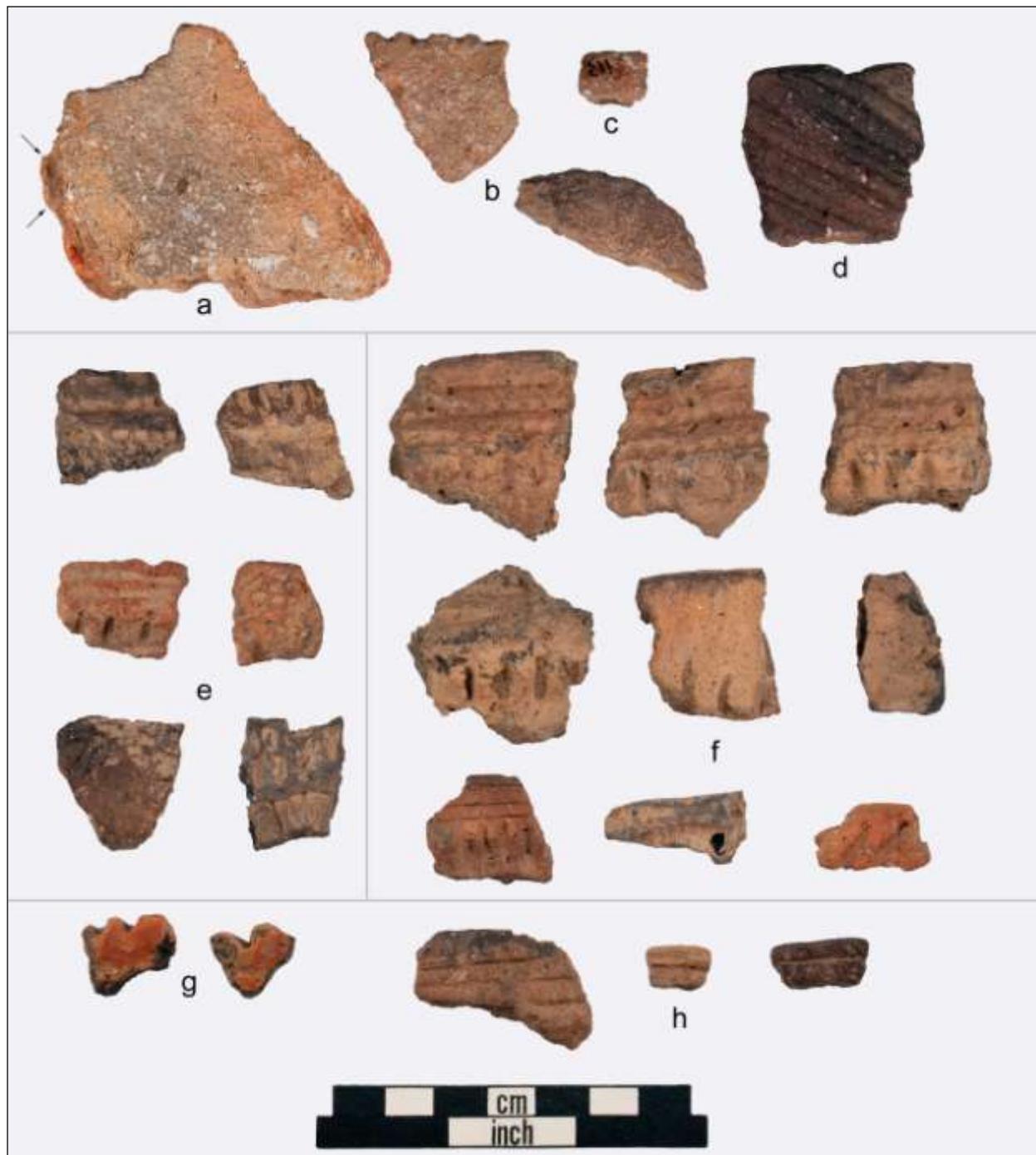


Figure 26. Aboriginal pottery basal and rim sherds. *a* – Marcey Creek flat basal sherd with small section of vessel wall (arrows); *b* – 2 Selden Island rim sherd with nicking; *c* – Selden Island rim sherd with coil break; *d* – Accokeek rim sherd; *e* – 6 Shepard rim sherd; *f* – 9 Page rim sherd; *g* – 2 Keyser rim sherd with notches; *h* – 3 Potomac Creek rim sherd with incised horizontal lines.

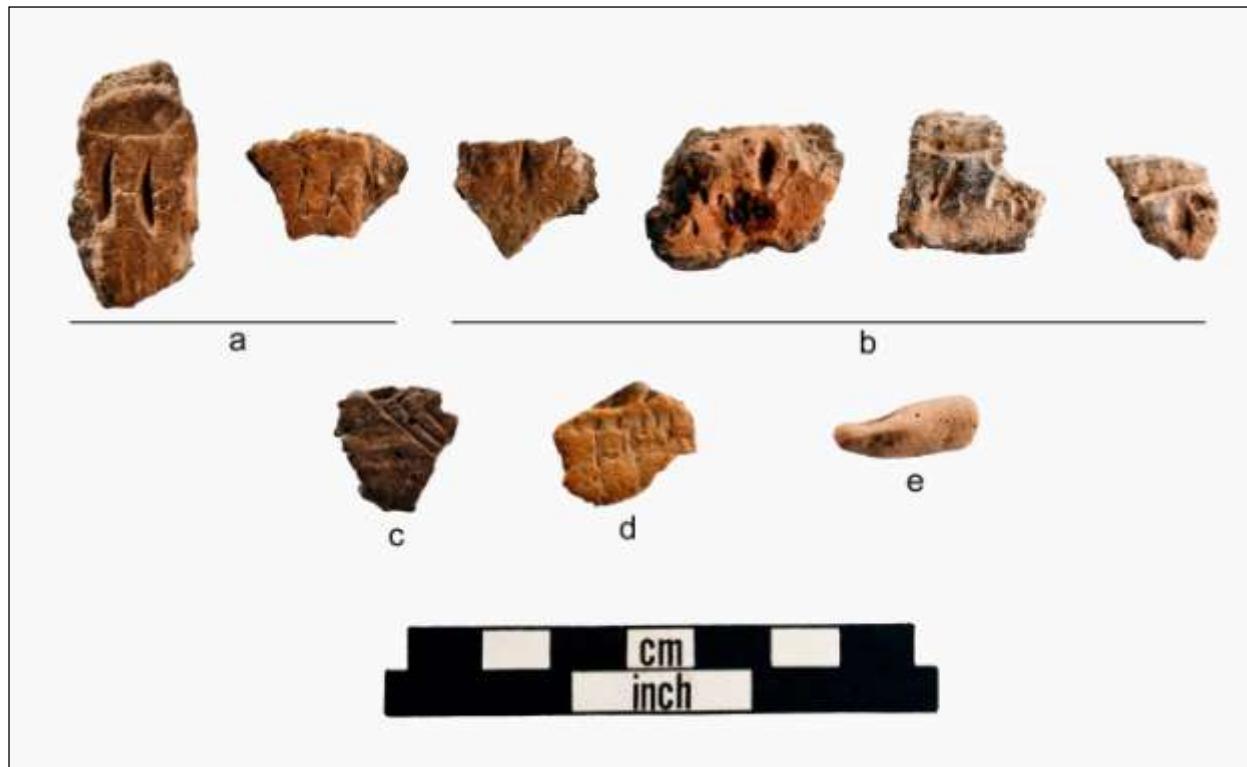


Figure 27. Decorated body sherds. *a* – Page sherds with fingernail impressions; *b* – Page sherds with slashes; *c* – Potomac Creek sherd with incised nested rectangles; *d* – Potomac Creek sherd with linear design of stamped squares; *e* – sandy pasted pinched coil fragment.

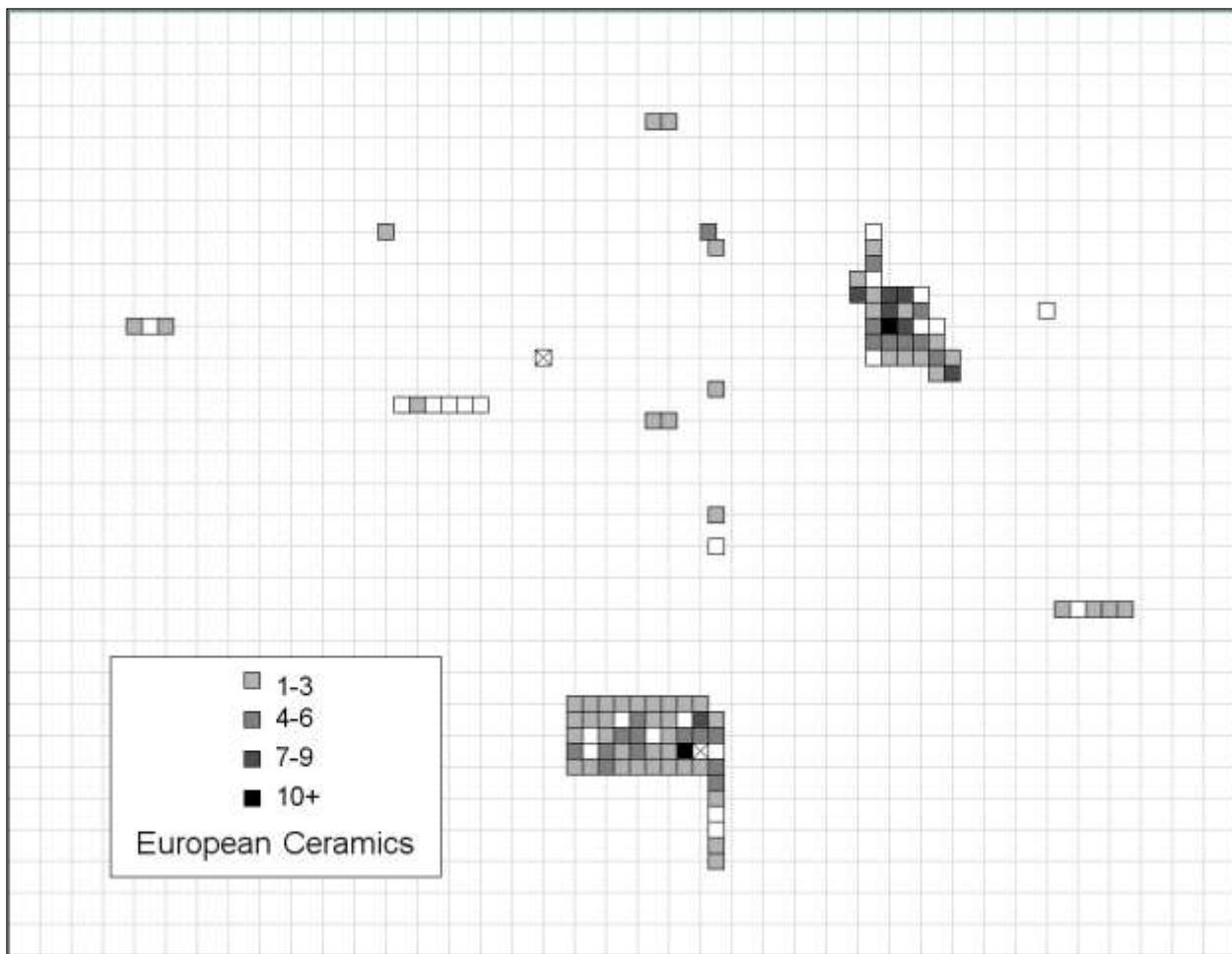


Figure 28. Distribution of European ceramics.

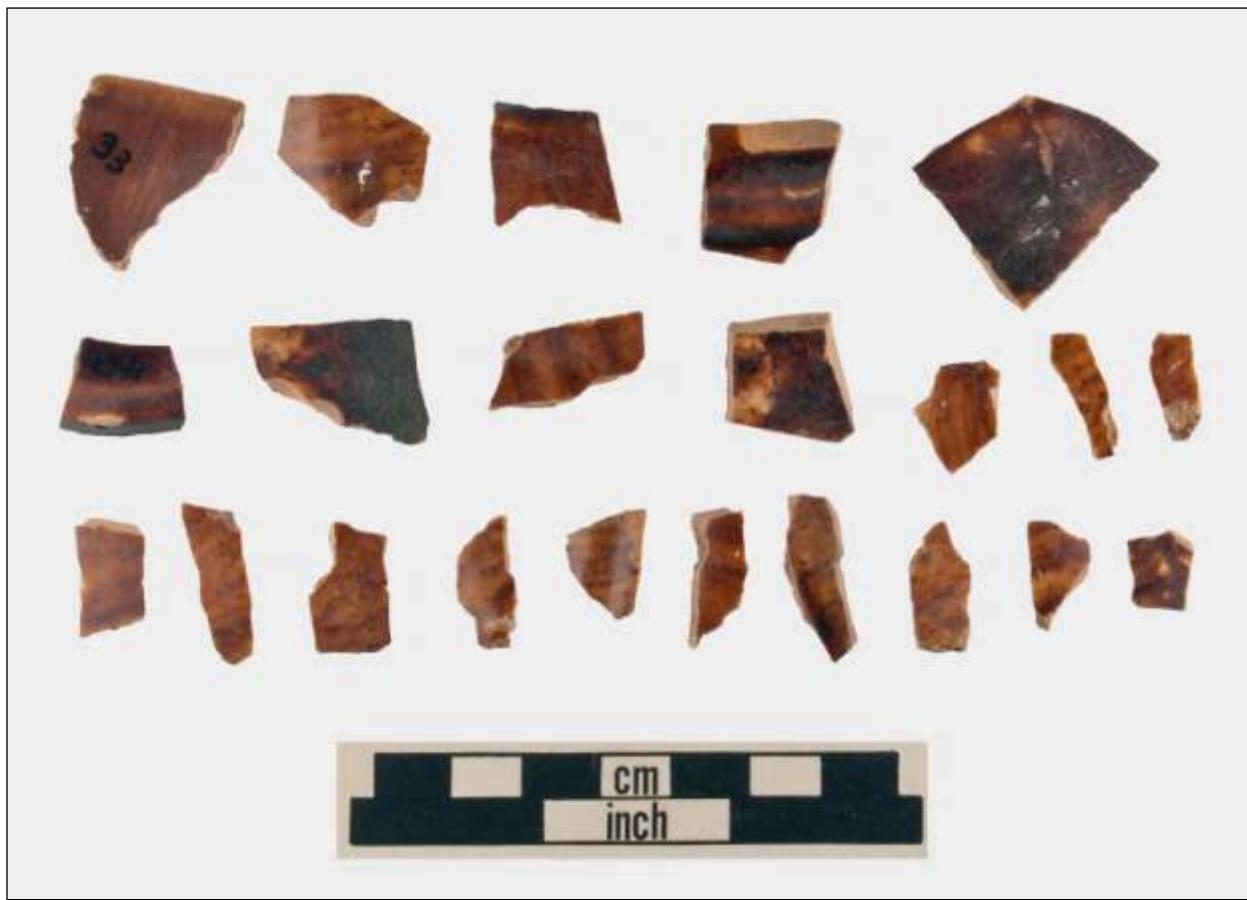


Figure 29. Manganese Mottled ceramics.



Figure 30. Staffordshire slipware ceramics.

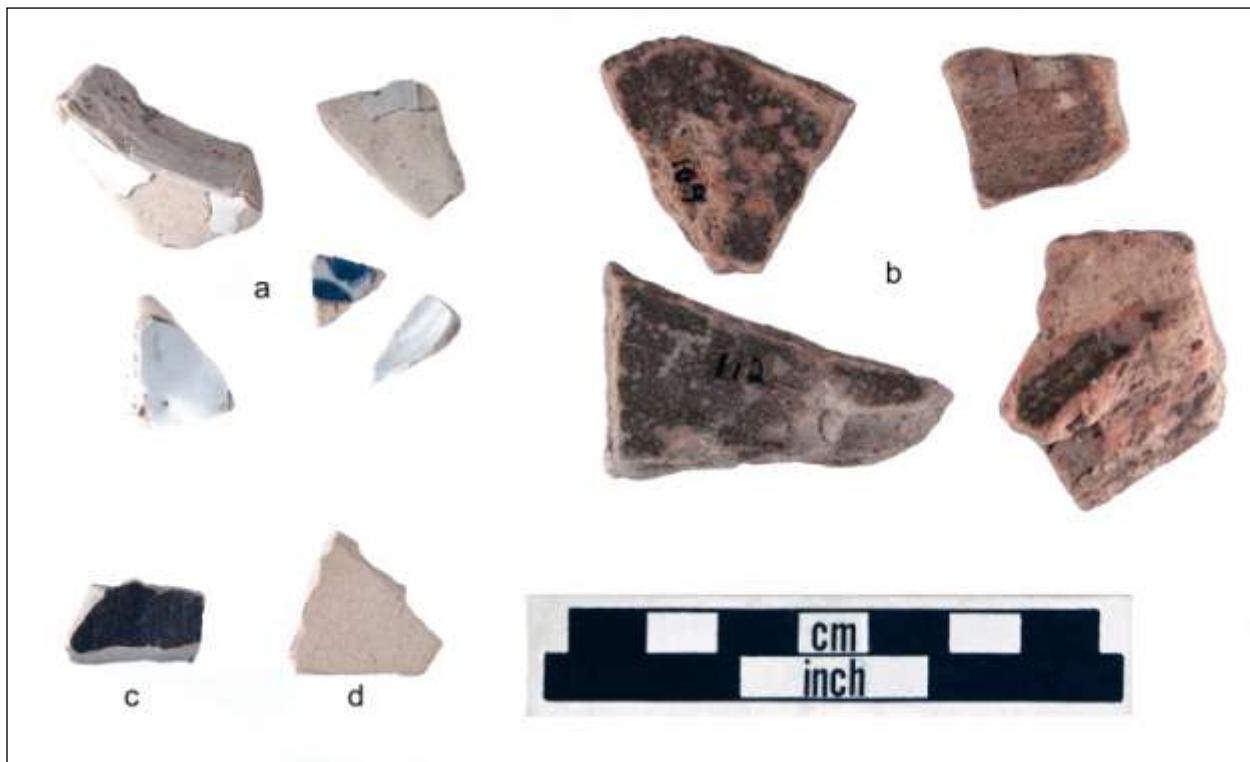


Figure 31. Miscellaneous European ceramics. *a* – tin-glazed earthenware; *b* – olive jar; *c* – grey salt-glazed stoneware with brown interior glaze; *d* – buff-pasted ware with yellow salt-glaze.



Figure 32. Lead-glazed red earthenware. *a* and *inset* – molded shell appliqué.



Figure 33. “Local” earthenware.



Figure 34. Rhenish grey salt-glazed stoneware.



Figure 35. Rhenish brown salt-glazed stoneware.

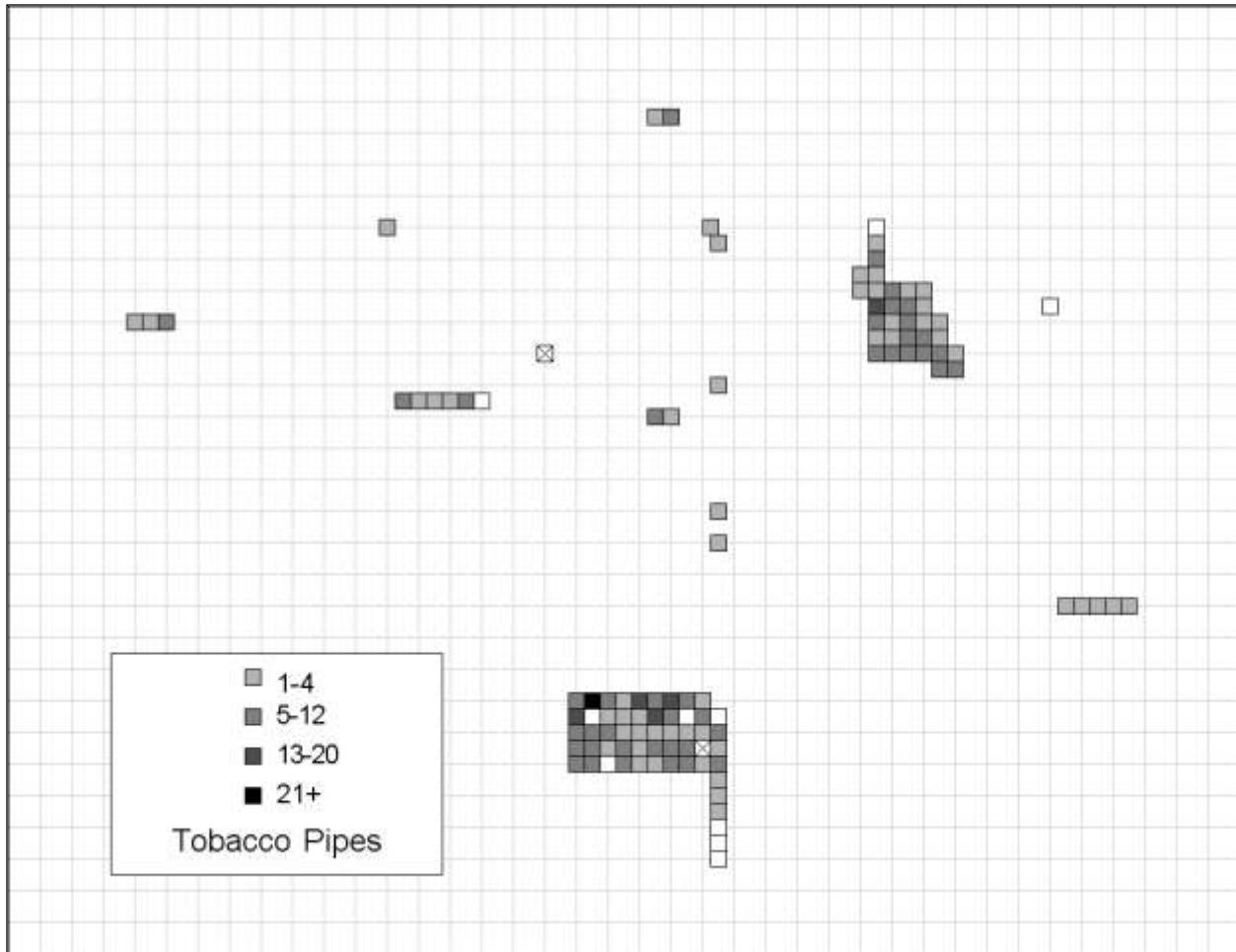


Figure 36. Distribution of tobacco pipe fragments.



Figure 37. European tobacco pipes. *a* – heelless; *b* – heeled; *c* – pewter pipestem (bent); *d* – decorated pipe bowl rims.

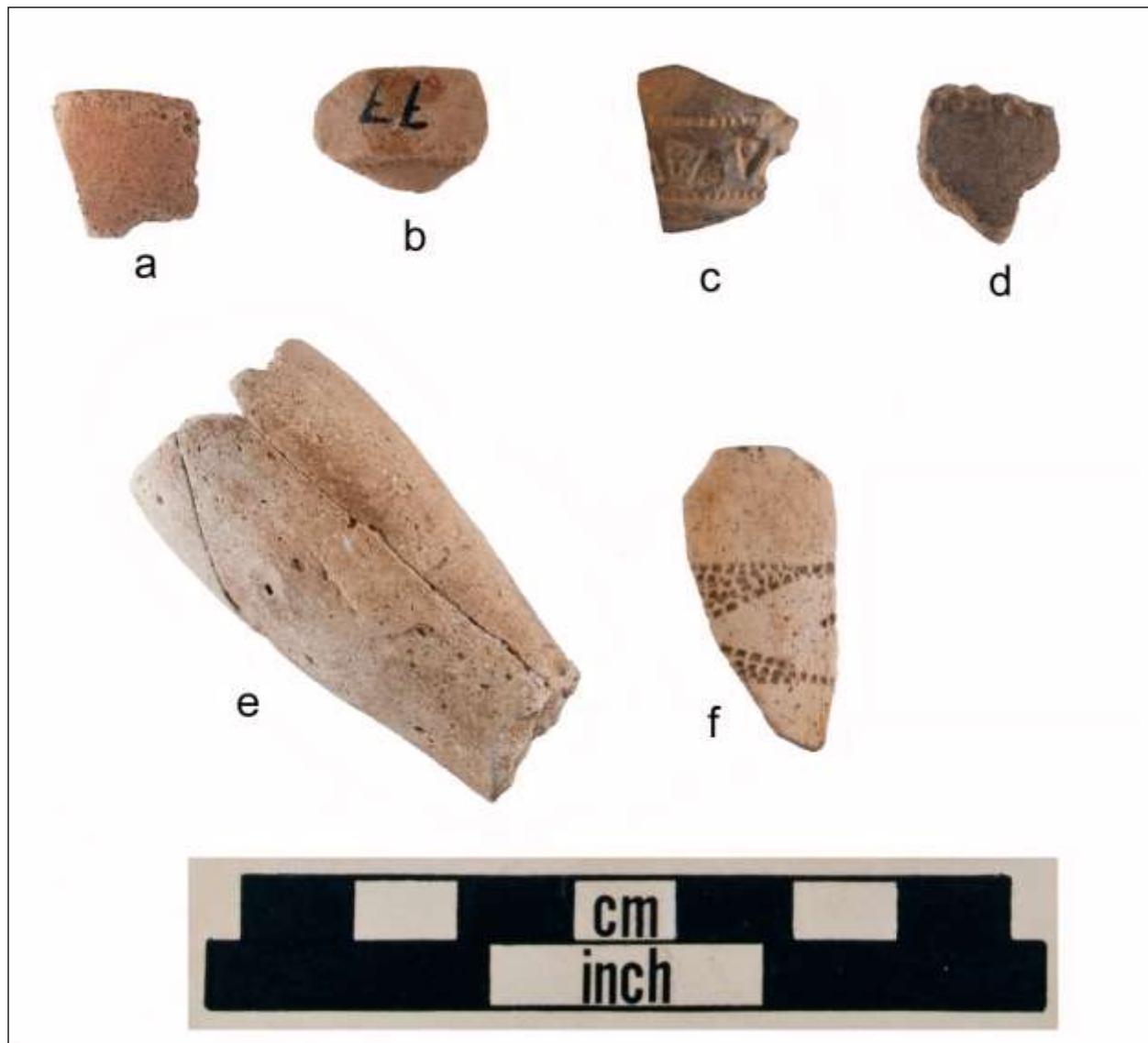


Figure 38. Native American tobacco pipes. *a* – red clay plain rim; *b* – red clay rim with plain collar; *c* – red clay bowl with rotating triangle-and-dot motif bounded by upper and lower roulette lines; *d* – grey clay bowl with line of five impressed dots; *e* – reddish-grey clay “American export” pipe bowl (reconstructed); *f* – reddish-grey clay “American export” pipe bowl with roulette (“running deer”) motif.

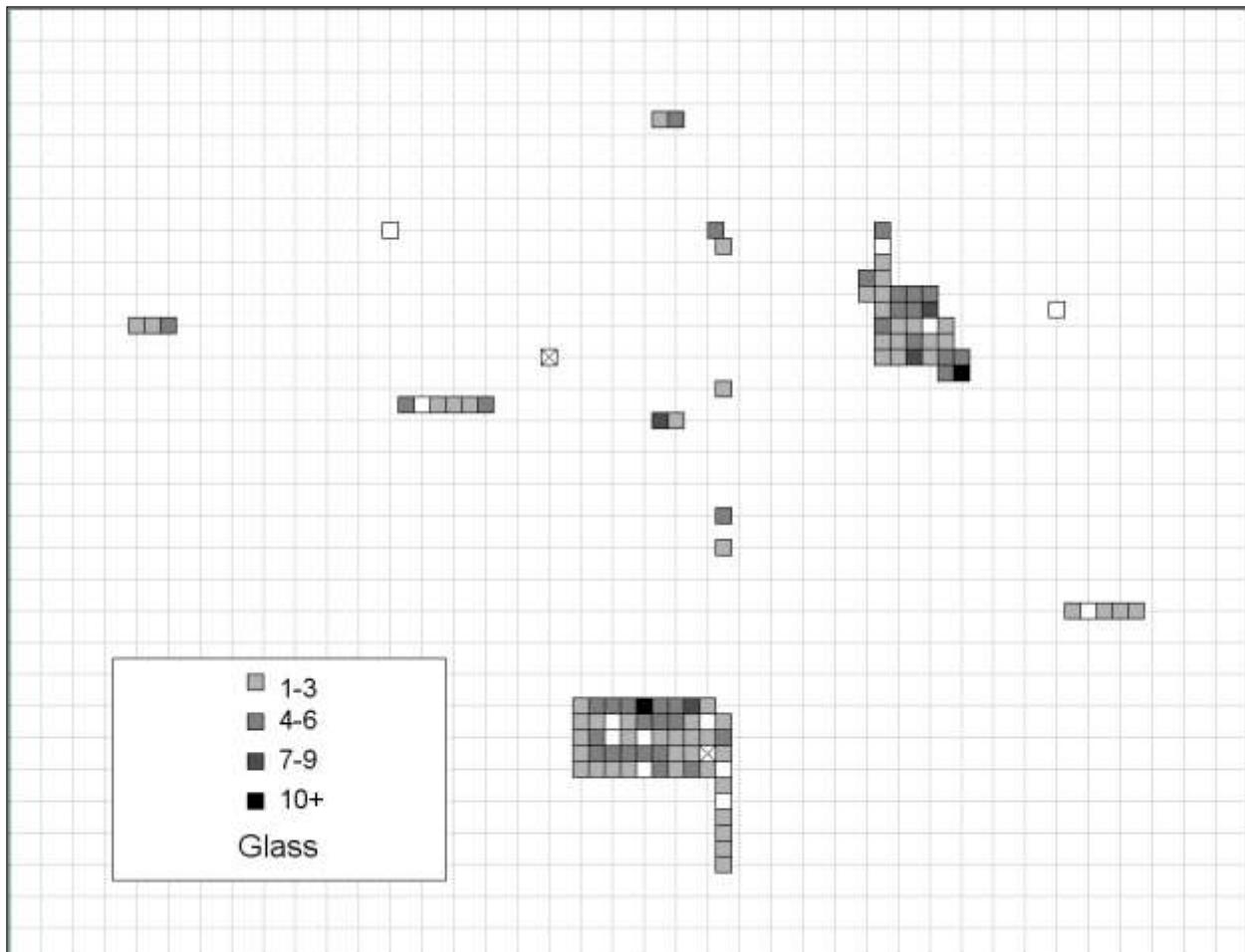


Figure 39. Distribution of glass fragments.

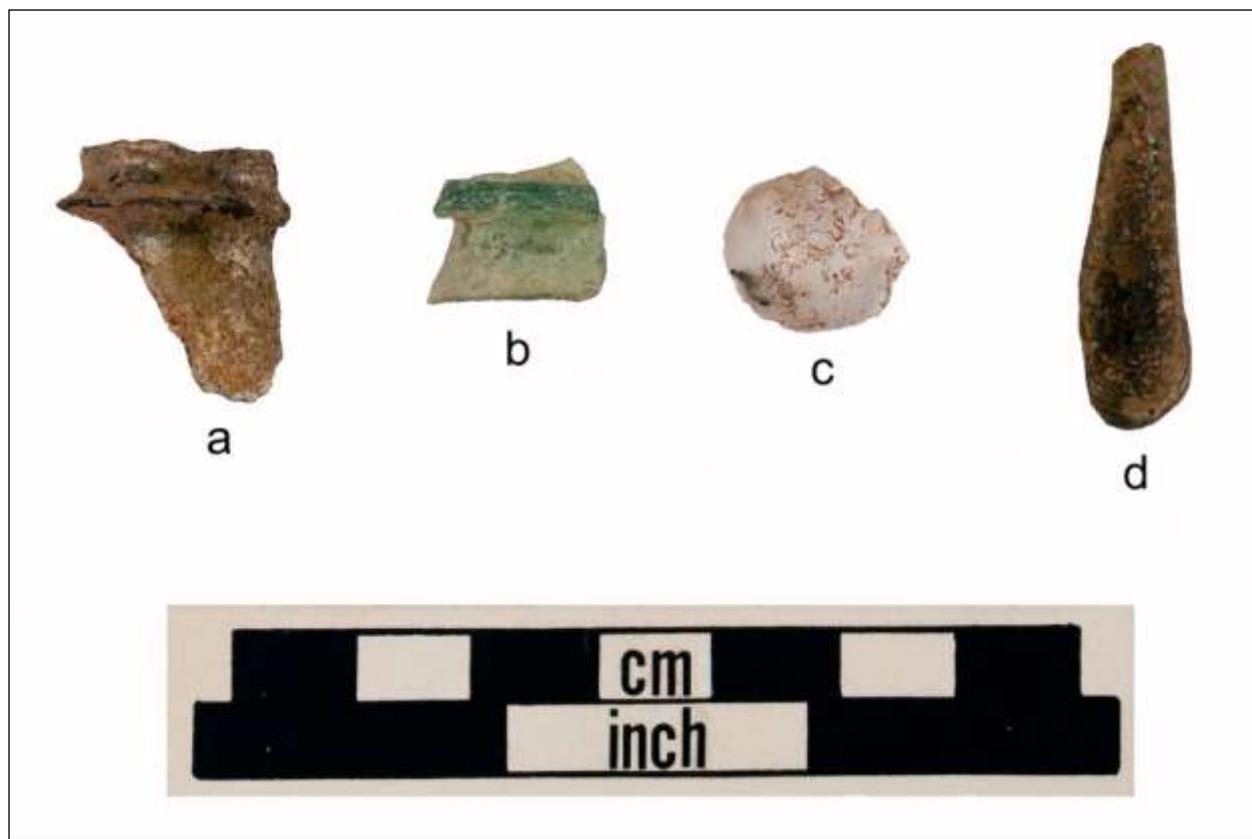


Figure 40. Glass. *a-b* – bottle neck/lip fragments; *c* – clear glass, possible appliquéd fragment; *d* – clear glass elongated teardrop.



Figure 41. Worked green bottle glass. *a* – spokeshave scraper; *b* – endscraper; *c* – endscraper; *d* – possible multipurpose tool — sidescraper (top edge, at top) and knife (lower edge, at top) showing cutting edge (bottom).

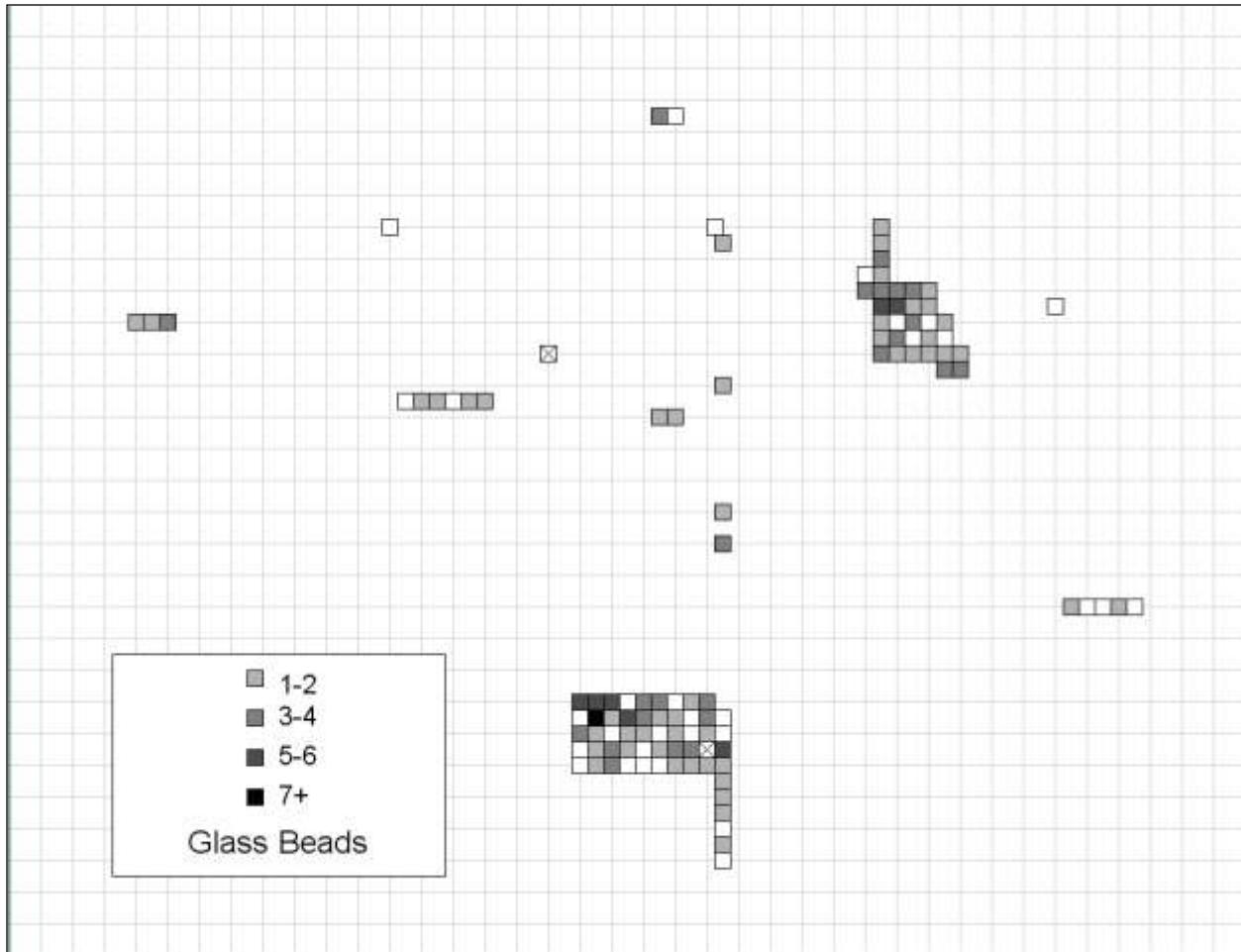


Figure 42. Distribution of glass beads.



Figure 43. Representative sample of various sizes and shapes of Cornaline d'Aleppo (*top*) and black glass beads (*bottom*) from Heater's Island.



Figure 44. Representative sample of various glass seed beads from Heater's Island.



Figure 45. Various glass beads from Heater's Island. See Table __ for description of individual beads.

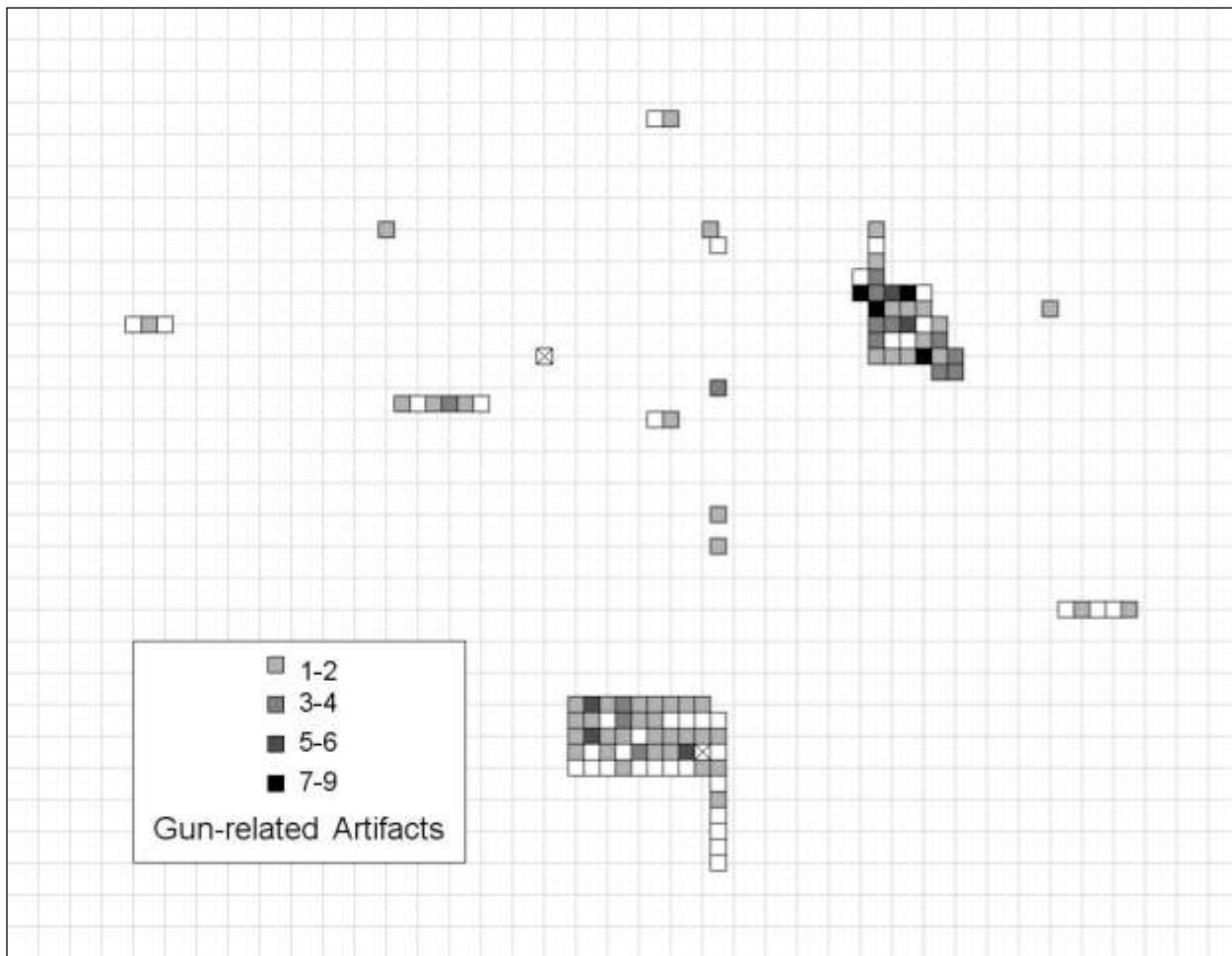


Figure 46. Distribution of firearms-related artifacts.



Figure 47. Lead shot and related artifacts. *a* - .56 cal. balls; *b* - balls exhibiting apparent bite marks; *c* - .50 cal. balls; *d* - .35 cal. shot with attached sprue vestige; *e* - .30 cal. shot; *f* - .20-.25 cal. shot; *g* - flattened lead pieces with central hole or depression.

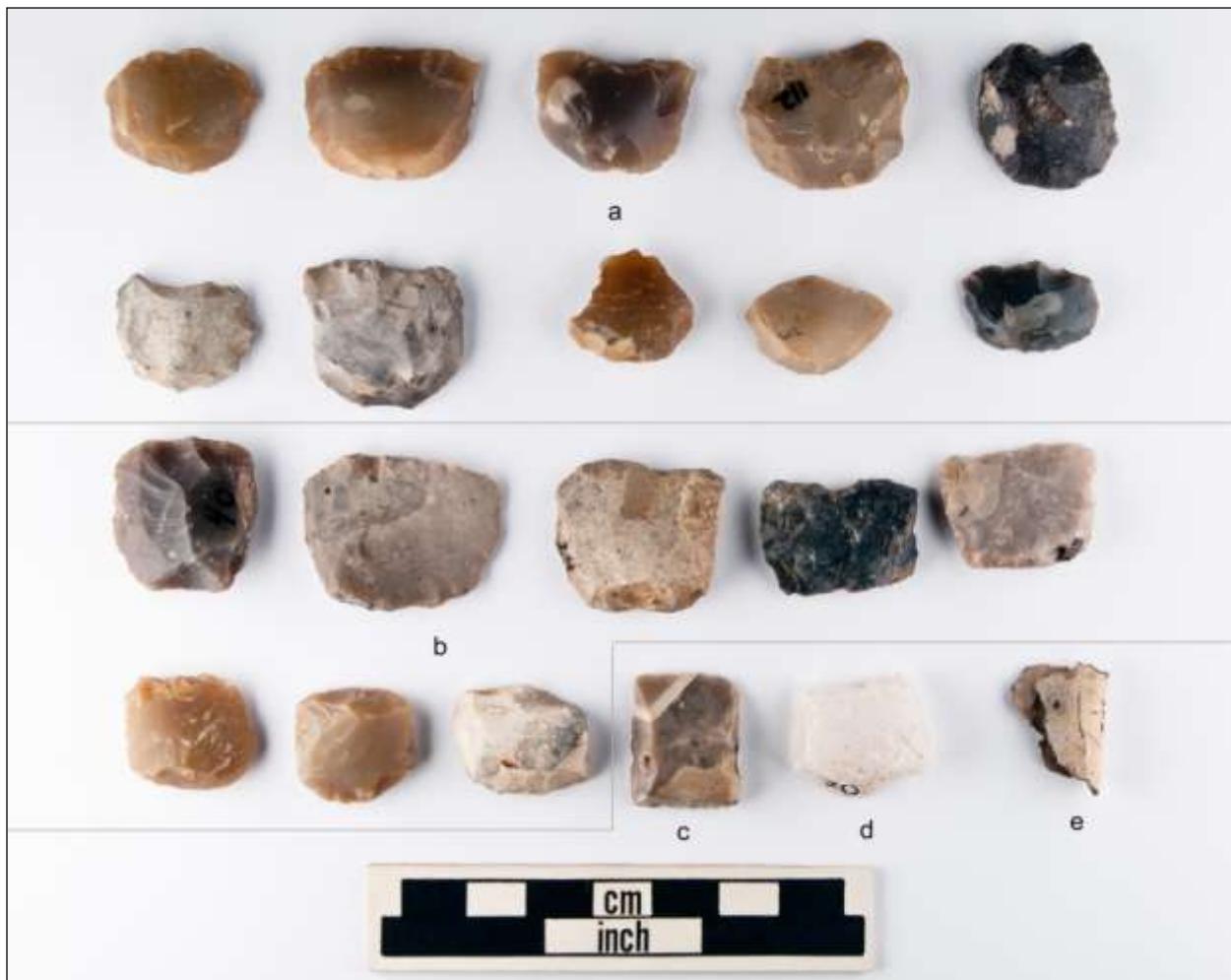


Figure 48. Gunflints and related artifacts. *a* – rounded back spalls; *b* – rectangular spalls; *c* – English prismatic blade gunflint; *d* – quartz gunflint, presumably Native-made; *e* – lead gunflint grip.

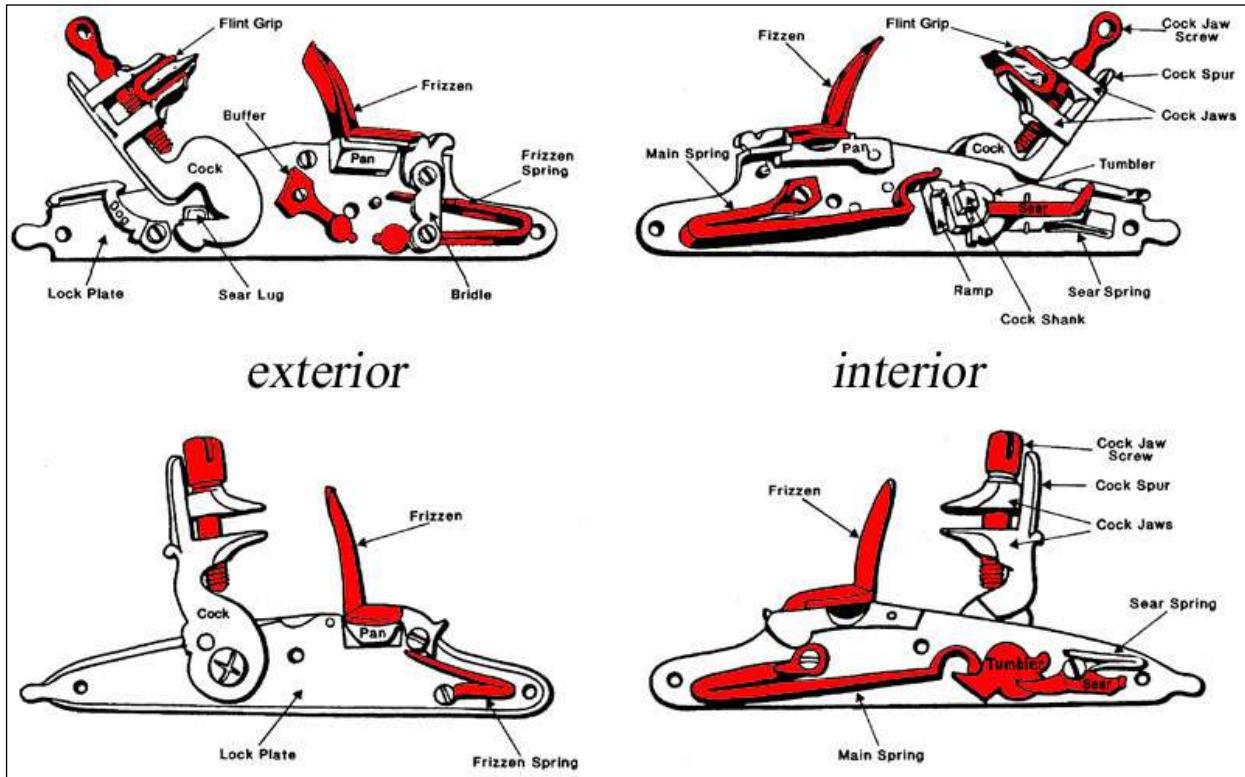


Figure 49. Doglock (top) and flintlock (bottom) mechanisms; shaded components are represented at Heater's Island (adapted from Peterson 1956:Plates 25 and 36).

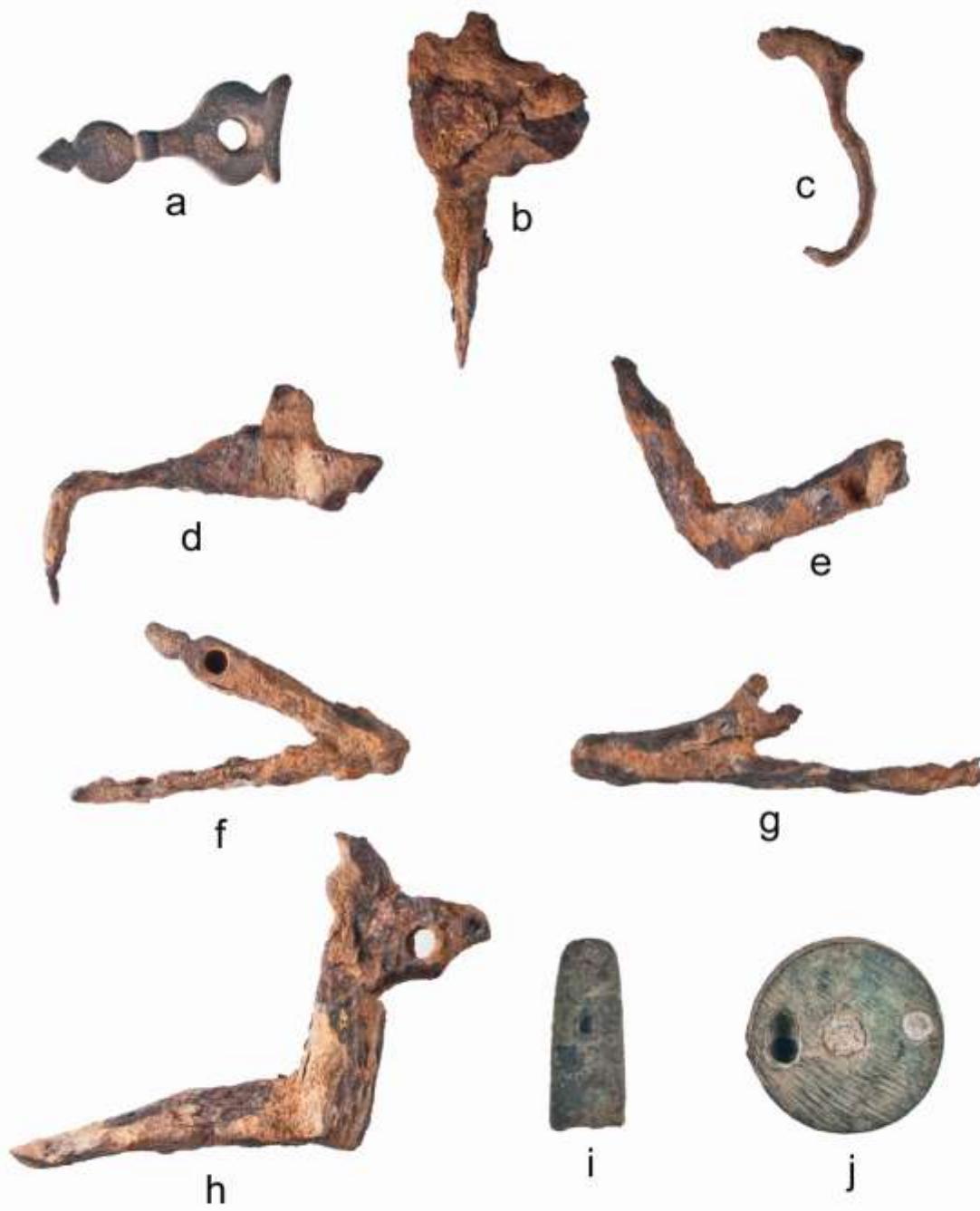


Figure 50. Firearms components. *a* – dog lock buffer; *b-c* – possible triggers; *d-e* – sears; *f* – frizzen spring; *g* – mainspring; *h* – frizzen; *i* – possible buttplate tang; *j* – possible breech plug.



Figure 51. Firearms components and corresponding X-rays. *a* – flintlock screw; *b* – doglock screw; *c* – flintlock tumbler; *d-e* – possible gun parts.

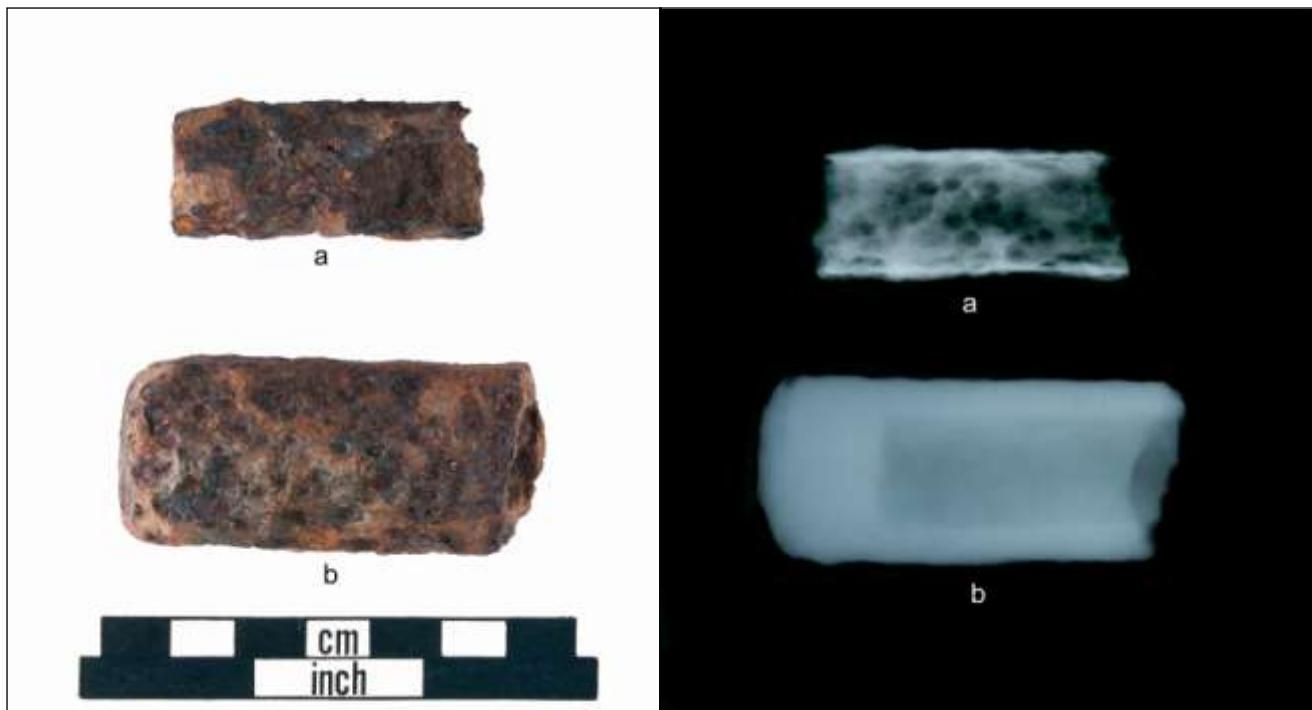


Figure 52. Gun barrels and corresponding X-rays. *a* – .60 cal. gun barrel fragment; *b* – .65 cal. gun barrel fragment.

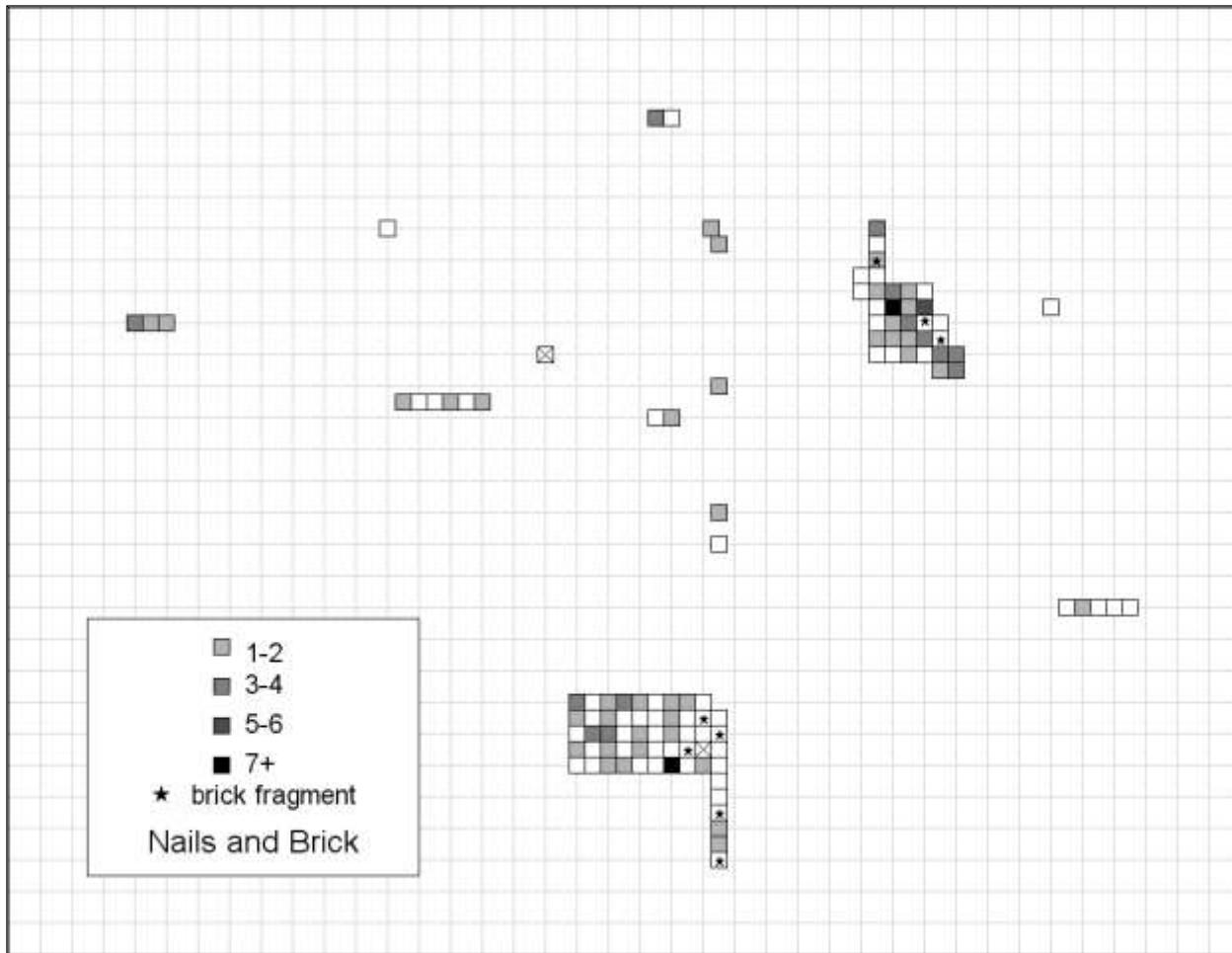


Figure 53. Distribution of nails and brick fragments.



Figure 54. Representative hand-wrought iron nails and brass tacks from Heater's Island. *a* – complete, minimally corroded rose head nail; *b* – examples of clinched nails; *c* – examples of brass tacks.



Figure 55. Handmade brick fragment from Heater's Island.

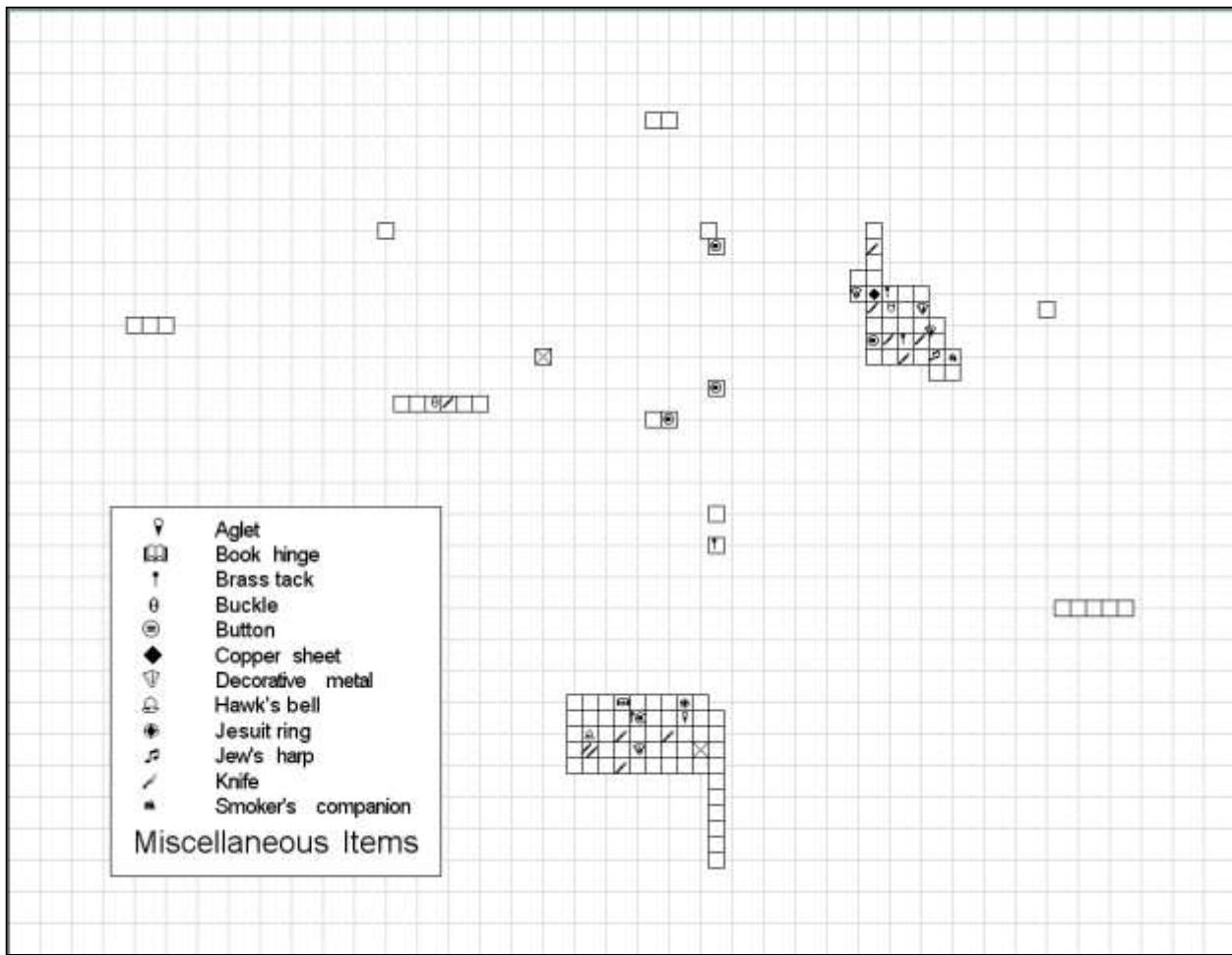


Figure 56. Distribution of miscellaneous metal artifacts.



Figure 57. Brass/copper artifacts from Heater's Island. *a* and *Inset* – Jesuit ring; *b* – hawk's bell; *c* – Jew's (jaw) harp fragment; *d* – book or box hinge.



Figure 58. Brass/copper artifacts from Heater's Island. *a* – decorative brass strap “keeper”; *b* – brass leather ornament with shell motif; *c* – brass buckle fragment; *d* – brass button embossed with a star pattern on a floral motif background; *e* – copper aglet.

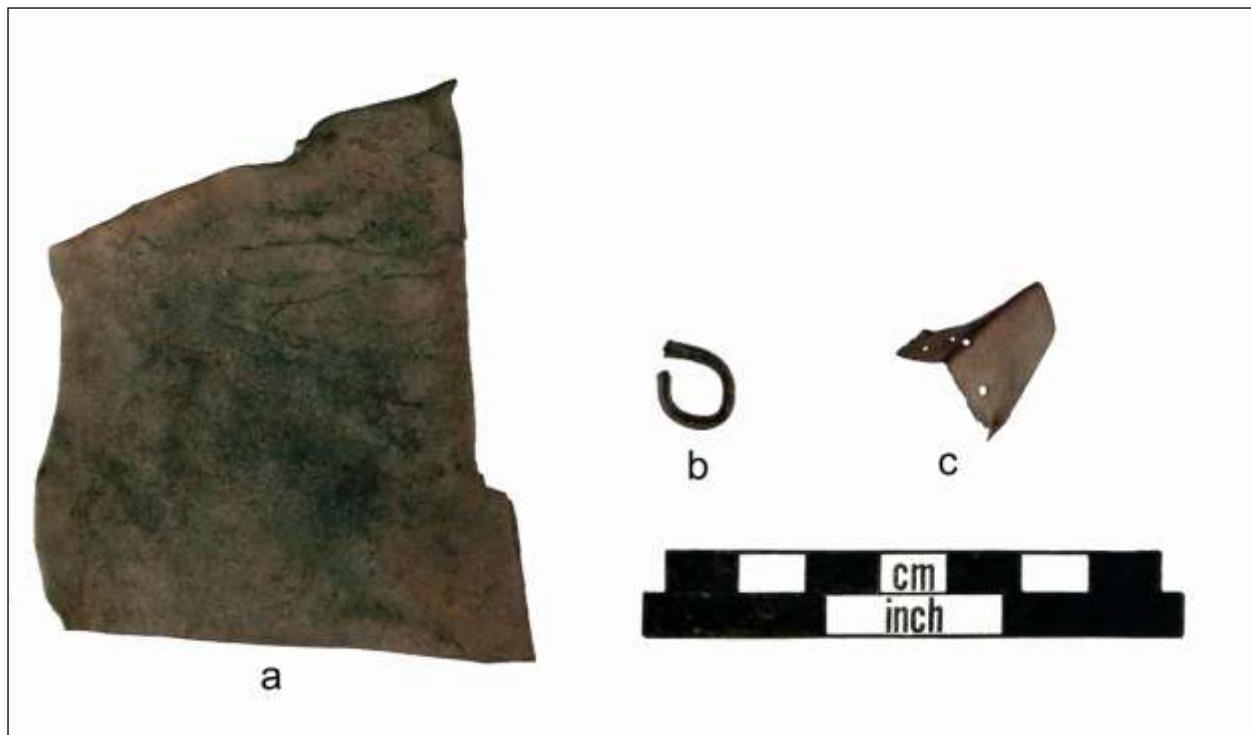


Figure 59. Copper artifacts from Heater's Island. *a* – copper sheet exhibiting cut edges; *b* – copper tubing; *c* – bent and folded piece of copper with small holes.



Figure 60. Iron artifacts from Heater's Island. *a* – knife tip; *b* – knife blade fragment with tang; *c* – knife blade fragment with curled tang, or possible strike-a-light; *d* – knife blade (note rivet at right end); *e* – smoker's companion; *f* – probable snuff box.



Figure 61. Iron U-shaped bracket with a stem.

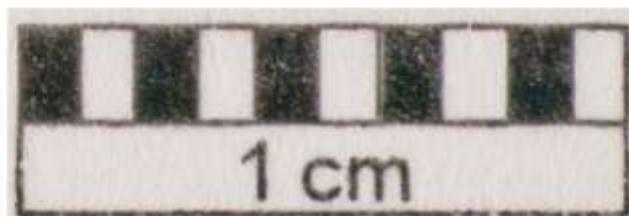


Figure 62. Lead object with central notch and two flaps, one folded up.



Figure 63. Fragment of a bone beamer (*courtesy of Elizabeth Moore*).



Figure 64. Tip of a bone awl or needle (*courtesy of Elizabeth Moore*).



Figure 65. Bone fragment cut in a zig-zag pattern (*courtesy of Elizabeth Moore*).



Figure 66. Polished bone with patterned and decorative cut marks (*courtesy of Elizabeth Moore*).

A071 | 1280x1024 | 2013/05/24 13:24:26 | Unit: mm | Magnification: 6.7 x | fibula



5.0 mm

18FR72, Lab No 36-F1, cut mark on dog tibia

Figure 67. Dog tibia exhibiting butchering marks (*courtesy of Elizabeth Moore*).

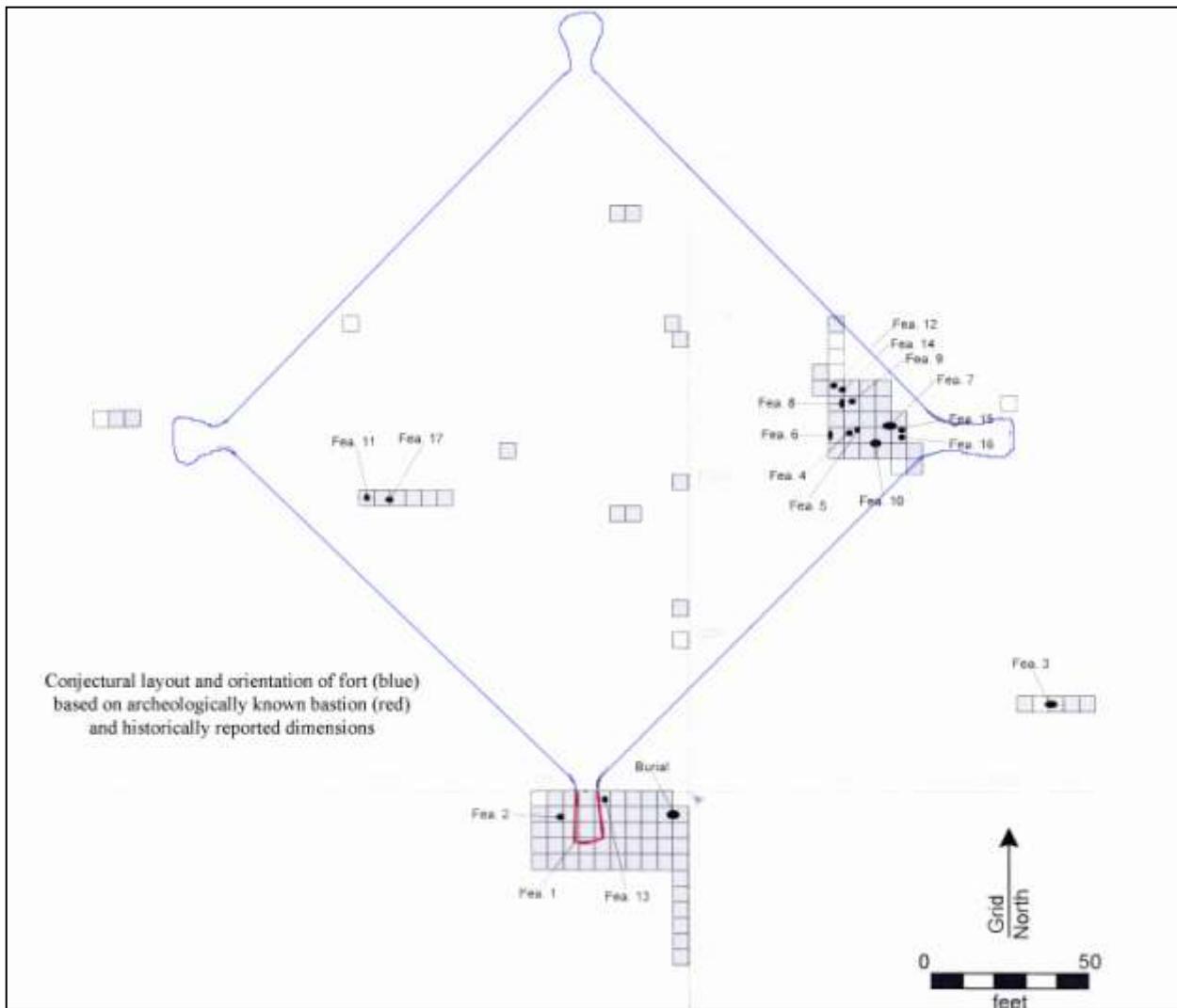


Figure 68. Conjectural layout of the fort at Heater's Island based on the location of the southern bastion and excavation units.

The Fort at Monhantic (72-91)
Mashantucket Pequot Reservation

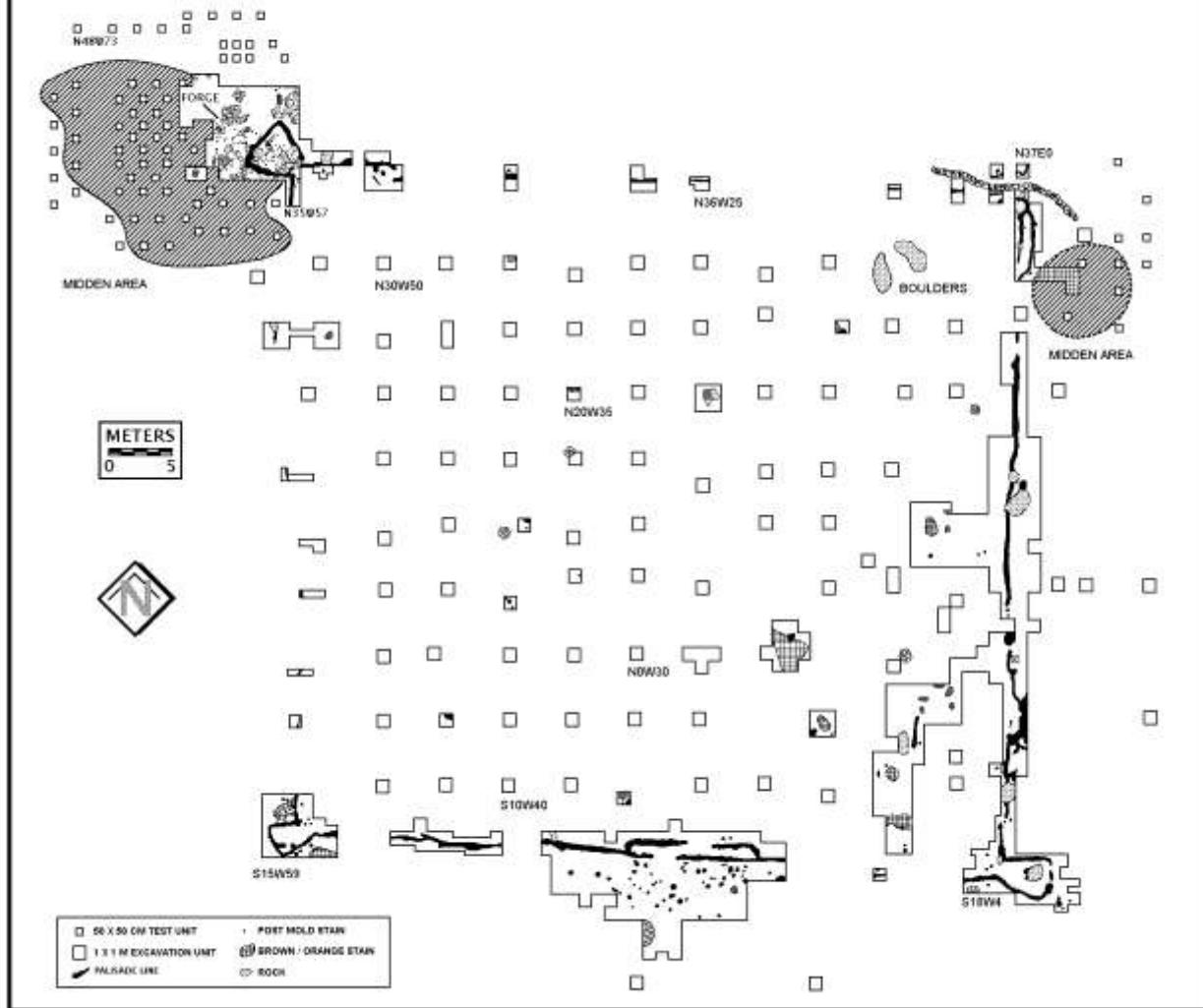


Figure 69. Plan view of Monhantic Fort, ca. 1675-1680 (from McBride 2006a:Figure 1).

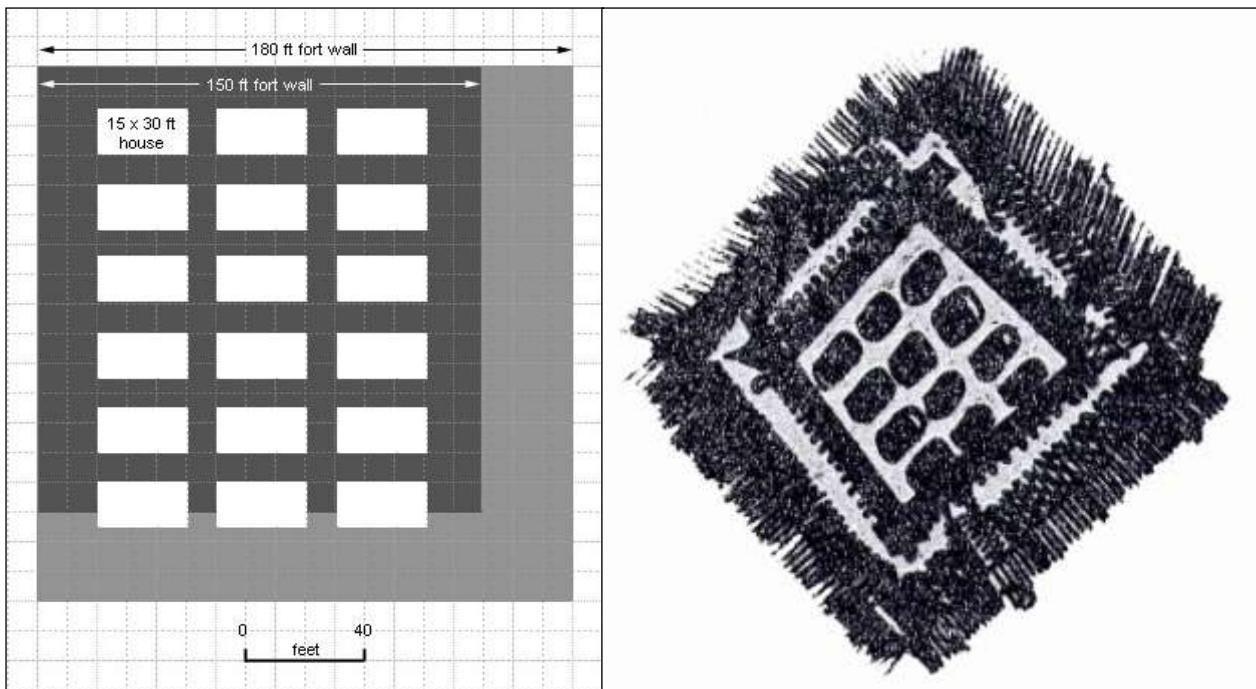


Figure 70. Conjectural placement of 18 houses (15 x 30 ft) within a 150-foot and 180-foot square fort (*left*); compare to the drawing of the 1675 Susquehannock Fort on Piscataway Creek (*right*) taken from a map in the British Records Office, London.

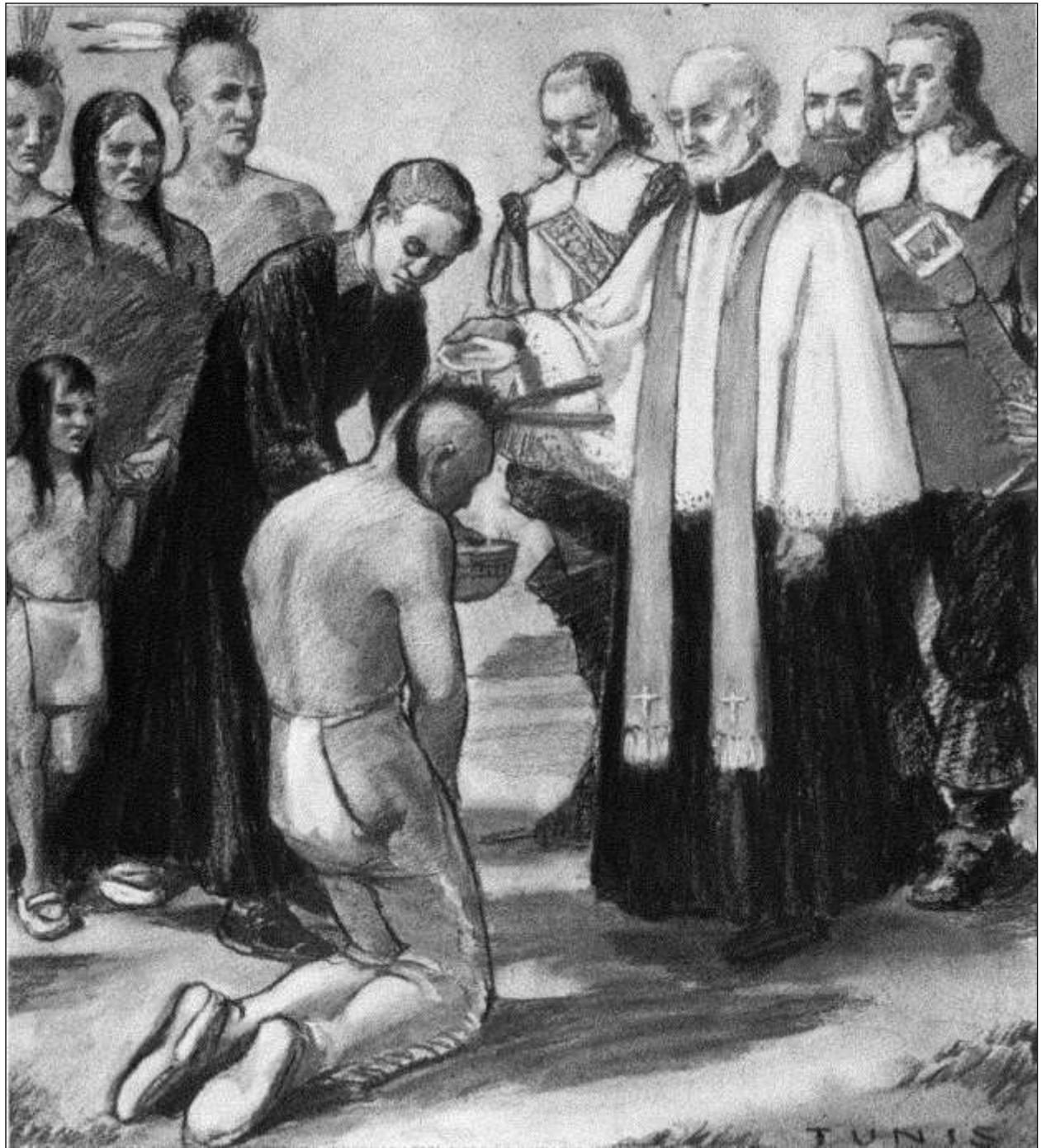
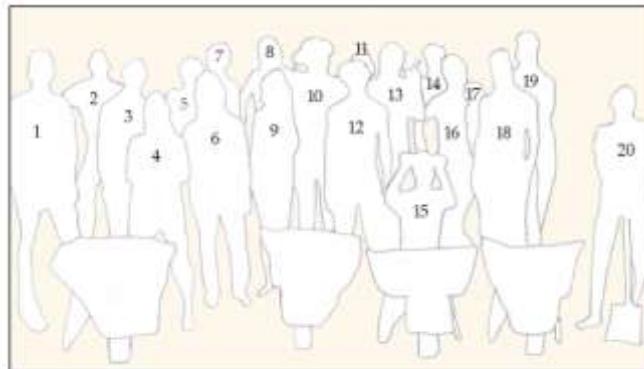


Figure 71. *Baptism of Kittamaquund*, 1928 charcoal drawing by Edwin Tunis (Maryland State Archives SC 1480-2-5).



1970 University of Maryland Heater's Island Crew



- | | |
|---------------------------------|-----------------------|
| 1. Mike Geschlecht | 11. Pat Barth? |
| 2. Robby Lawson? | 12. Marshall Ransom |
| 3. Steve Feinberg | 13. Bob Wall |
| 4. Kitty Keller | 14. Alan Taback |
| 5. Dina "Dinky" Steiner | 15. Cassandra Richard |
| 6. John Liversidge? | 16. Barry Novick |
| 7. Jim Davis | 17. Pat Bartolillo |
| 8. J. Ivor Gross | 18. Ross Englehart |
| 9. Sharon "The Widder" Warfield | 19. Munro Meyersburg |
| 10. Dan Muirhead | 20. Bruce Bitcover |

Not pictured:

Ralph Dean
Carol Denham (?)

Lorna Gold
Rick Wolfinger (?)

