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Caleb Pusey House - III
History Hidden in the Earth

L. T. ALEXANDER

A Unique "TD" Clay Pipe
(and Associated Artifacts)



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CALEB PUSEY HOUSE - III

HISTORY HIDDEN IN THE EARTH

JOSEPHINE F. ALBRECHT

INTRODUCTION

Known to generations of local people as the "Billy Penn House," the small one-and-a-half story stone cottage in Upland, Pennsylvania, had by 1960 deteriorated to the point of imminent collapse before a group of private citizens undertook the formidable task of saving the only building still standing in Penn's Province which can claim documented association with the Proprietor. (William Penn's own Mansion on the Delaware River is an impressive re-creation done from documents, letters and a State-funded, professional exploration of the buried cellar and surroundings.) Despite its importance historically, the State had considered a crumbling two-room relic, huddled on a small property in an economically depressed area, to be too poor an investment to be worth the cost of restoration. Encouraged, however, by the organization of the "Friends of the Caleb Pusey House, Inc." which was created by the efforts of Mrs. Henry Patterson and Mrs. Lynmar Brock, the Historical and Museum Commission proposed a "pilot" project whereby the State would share, half-and-half, the estimated costs of restoration. With the aid of Foundations and private citizens, and with a careful excavation undertaken by volunteers from the Archaeological Society of Delaware (Delaware was once part of Penn's Province), the work was carried forward, bringing in its train salvage and new life to the wreckage of what had been Caleb Pusey's "Landing Ford Plantation".

The Cottage was protected during his lifetime by John Price Crozer, who had acquired it with the land bought in 1845 for his textile mills. It stands beside Race Street, the small road which followed the lower end of the millrace which was extended from the second dam near Hattapeche or Baldwin's Run down to the third mill built by the Penn, Carpenter, Pusey partners. The first mill, the framework of which came over from England with Penn in 1682, had soon been carried away with its dam by a flood. Promptly rebuilt, another flood took out the new dam, forcing Pusey, the manager or "Keeper" of the mill to have a raceway dug from a dam built about a mile higher up on Chester Creek. This major expense, before the mill had made a profit, turned it into a bad investment for the English backers, and Penn and Pusey found themselves the sole remaining partners until Samuel Carpenter bought the shares that had been put up for sale to repay the debt.

The Cottage is indicated on the earliest map drawn by Penn's surveyor, Charles Ashcom in 1683, as well as on subsequent surveys made when the Mill property changed ownership after Caleb retired. Such old survey maps generally indicate buildings by a symbol which is rather like a child's drawing of a house and shows merely that it is small, with one chimney, or large, with two. The survey made by Samuel Lightfoot in 1730 (which we know only in a copy made in 1915 by the late Chester Baker) shows the Pusey Cottage with an astonishing TWO chimneys and what appear to be THREE gables (Figure 1). Some of this peculiar appearance may be due to the map having been copied at least twice, or it may be the surveyor's attempt to indicate a wing on the East end.

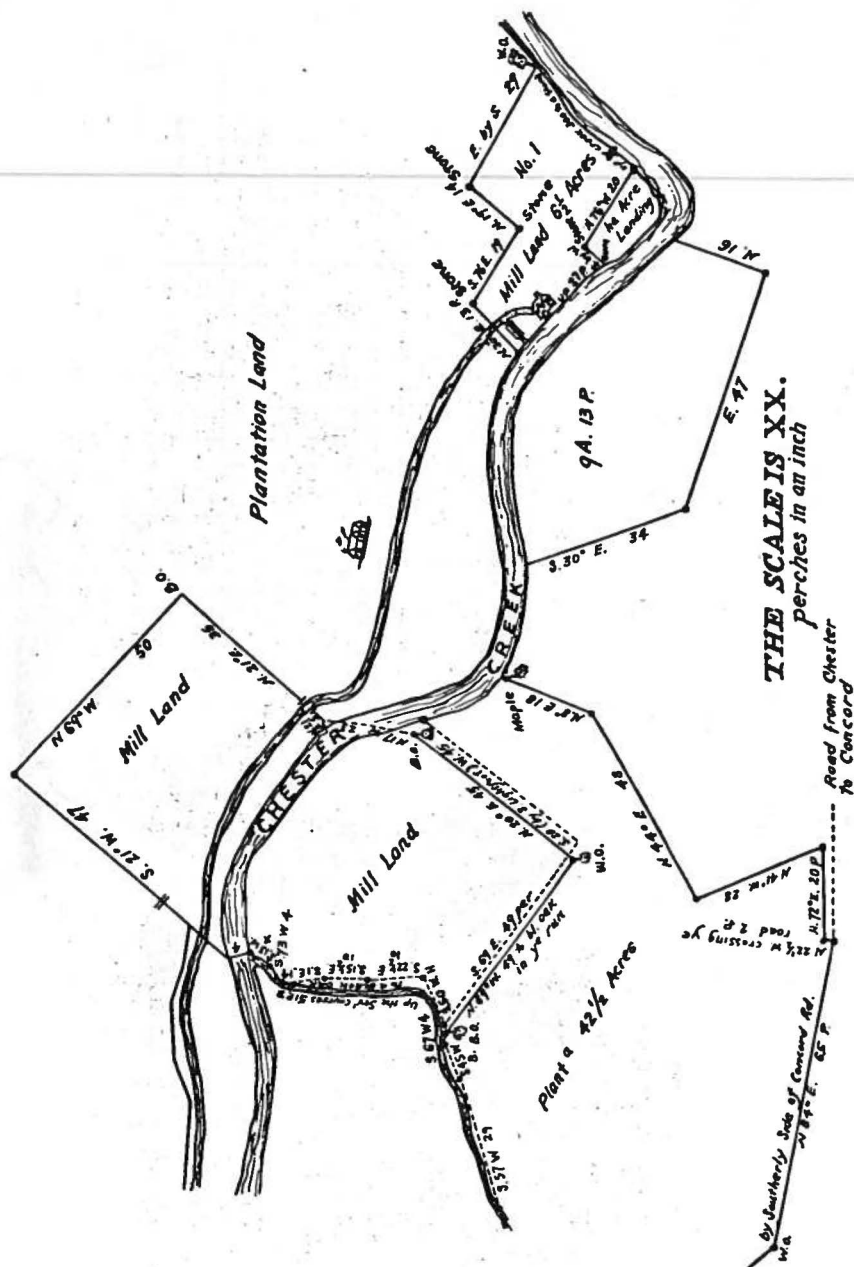


Figure 1 Samuel Lightfoot's map of 1730 showing the Caleb Pusey cottage, millrace and mill (Copy of a copy made by C. F. Baker on June 17, 1915. Copied and photographed by H. S. Widdoes, F. Ames Schuck and J. H. Craig.)

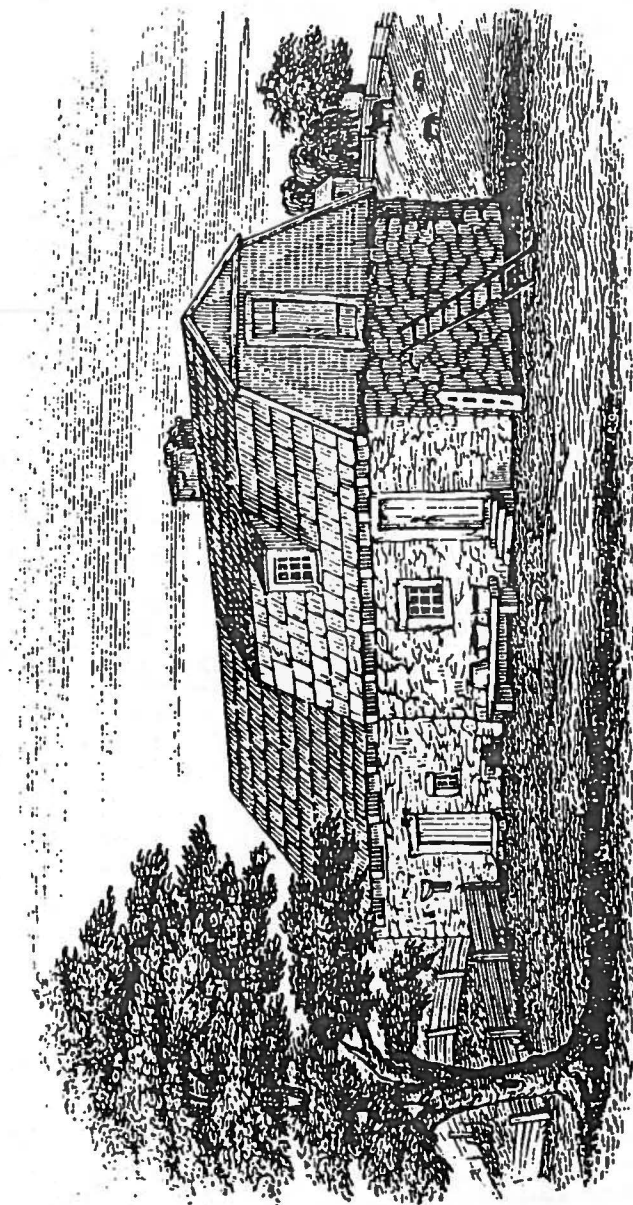


Figure 2 First known sketch of the Caleb Pusey house. Published in 1843.

CALEB PUSEY HOUSE
 THEN CHESTER TOWNSHIP, CHESTER COUNTY
 NOW UPLAND BOROUGH, DELAWARE COUNTY



As Sketched by J.F. Watson on the site April 23, 1827.
 (oven)
 (note: no windows)

Figure 3 Sketch of the Caleb Pusey House made on April 23, 1827 by John F. Watson. Note outdoor oven.

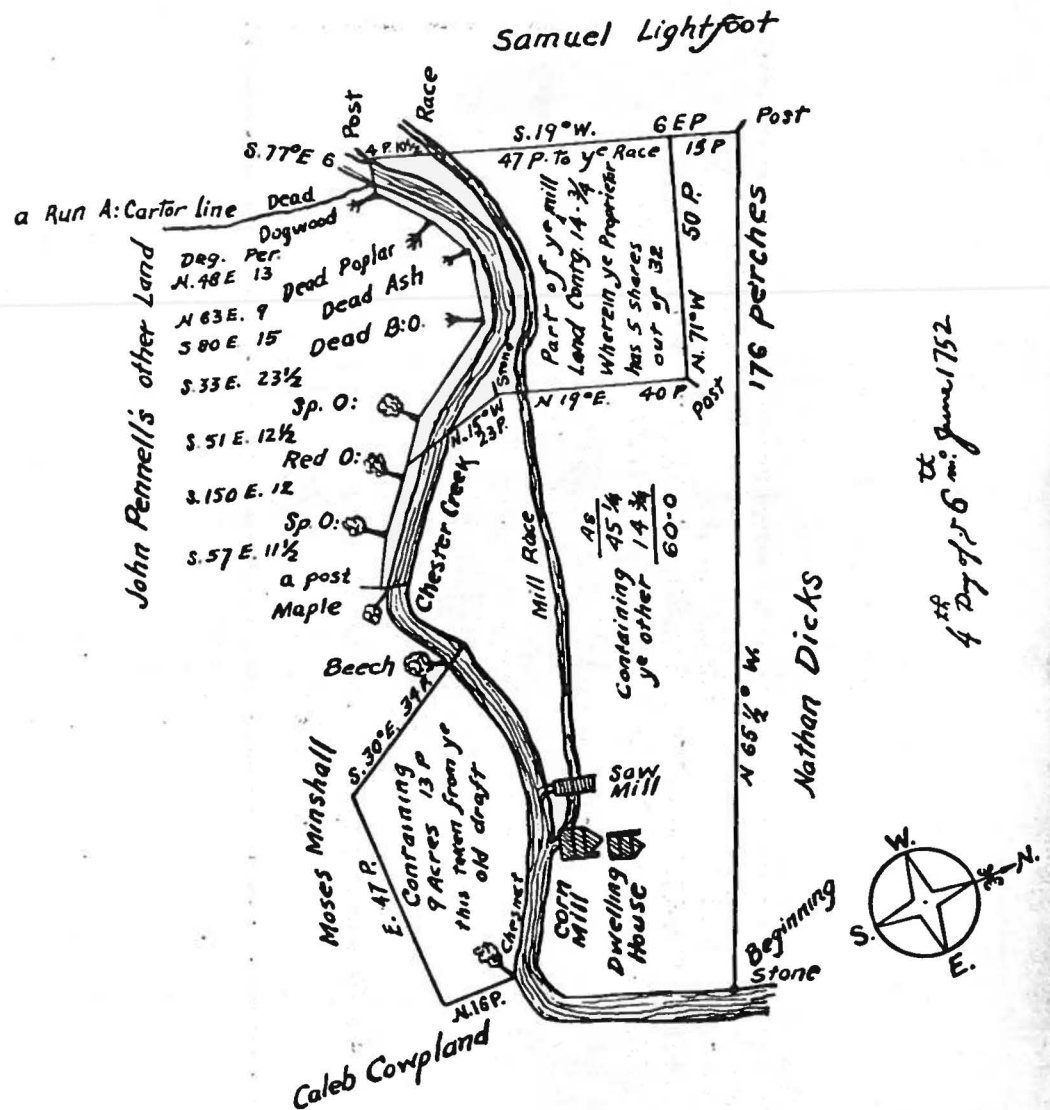


Figure 4 Samuel Lightfoot's Map of 1752 showing miller's house near 3rd mill, millrace, saw mill and corn mill (Copy of a copy made by C. F. Baker on June 17, 1915. Copied and photographed by H. S. Widdoes, F. Ames. Schuck and J. H. Craig.)

The earliest picture of the Cottage which has been discovered, so far, shows the house essentially as we know it today and was drawn prior to 1827, though printed in Sherman Day's "History of Pennsylvania" published in 1843 (Figure 2). The evidence for the earlier date of the drawing lies in a sketch made by John Fanning Watson in 1827 (Pennsylvania Historical Society), showing the bake oven (carefully designated) in FRONT of the house, a change from its original position inside the great fireplace (Figure 3). Per Kalm (1) the Finnish naturalist who spent months in and near the area after 1748, noted that bakeovens had been moved out-of-doors because of the danger of fire. This, indeed, may have been the cause of the fire which destroyed the central chimney, resulting in a new one being built at the back of the house, made to serve two smaller back-to-back corner fireplaces, thus heating both lower rooms. Two tiny winding stairs were also squeezed in, and the Cottage became a two-family house. (It never had piped water, plumbing, gas or electricity.) This early drawing (Figure 2) shows that the roof of the East end had already been lifted into the gambrel which it retains today, though the original A-gable is visible in the brickwork of the upper wall both then and now. The East gable doorway, which is also shown, was later filled in to window size but has been returned to its previous form in the restoration.

After the Puseys removed to London Grove, East Marlborough Township, Chester County in 1717, there ensued some thirty-five years of changing ownership, but in 1752 the Mill property was acquired by Samuel and Thomas Shaw, millers rather than investors, and remained in that family (a large one, according to the testimony of Samuel when he declined the post of Sheriff because of his responsibilities) for thirty-four years—a period of especial interest archaeologically since a preponderance of the excavated artifacts date from this period (1752-1786). Samuel, Sr., was apparently quite well-to-do, since tax records list him as having, in 1766, not only the grist mill and 150 acres of land but six servants (five negro, one bound), three horses, seven cattle and ten sheep. Another list credits him with ownership of six silver spoons. There was a dwelling erected beside the third mill (which was built in 1693) between the times when the Samuel Lightfoot survey maps of 1730 and 1752 (Figure 4) were drawn, which was perhaps necessitated by the "very large family" or because the two brothers were in partnership.



From 1792 until 1845 the Chester Mills were operated by the Flower family who sold to John Price Crozer, and it was a member of this family who turned over to the Pennsylvania Historical Society in 1870 one of the most famous weathervanes in the United States—the one bearing the initials of Penn, Pusey, and Carpenter, partners in business, 1699. (Figure 5).

Figure 5 Weathervane from the William Penn-Samuel Carpenter-Caleb Pusey mill.

UNCOVERING HISTORY HIDDEN IN THE EARTH

Since Colonial deeds were concerned only with the buying, bounding and selling of portions of land, it is seldom that the researcher finds in any of William Penn's land-grants references descriptive of the homes of the Proprietor's "first purchasers" and early settlers. Buildings are summarily dismissed as "messuages and tenements" respectively, (dwelling houses with adjacent farmyards and "rowhouses" for tenants). The home of Caleb Pusey, manager and agent for Penn's mill at Upland in what was then Chester County fared no better. It is referred to (1705) merely as "his now (present) dwelling," though his "home mead", "orchard fence", "walnut tree field", the cartway to his "water meadows" and the improvements which he made to the mill (1708) were deemed worthy of mention. Hence, it fell to volunteers from the Archaeological Society of Delaware, under the direction of Dr. Allen G. Schiek, to excavate evidences of the daily life of the Pusey family under and around their modest early dwelling, in order to provide an authentic basis for the restoration of the Cottage.

The first major discovery made by the archaeologists was that the existing East room stands over a cellar which had been filled to the floor joists with a rich mixture of artifacts and dirt (Figure 6). Pieces of heavy earthenware milkpans and food storage jars lay mingled with bits of delicate, handleless saltglazed stoneware teacups (1760-1800) and handpainted Staffordshire creamware after (1780) and tin-enamelled "delft" (1650-1750) - that effort of the early English potters to produce dishes as handsome as the majolica ware that trickled across the Channel from Spain and Italy via Holland. Broken stems and bowls of clay tobacco pipes lay among the bones and shells from long-ago dinners. Spoons of re-used base metal, cast in a mold made from some fine silver spoon, lay with buttons and buckles, some of whose legends ("Warranted double gilt") give evidence of the plating that once adorned them. The severe, undecorated cast pewter and tinned brass buttons, suitable to Quaker dress, came over from England by the barrel, as we know from early ships' lading lists (Appendix I). Bits of fragile Oriental tea bowls (1720-1790) rubbed rims with feather-edged "Leeds" creamware/pearlware (1790-1850).

One of the most useful clues to activities around the house lies in the two hundred coins with which the earth was laced, like raisins in an English "plum" cake. Ranging in time from James I (1603-1645) to 1956, from coins which came with the first English settlers to the period when the Cottage was described as "almost a shambles" (by William Jordan, who had left his grandmother's home (2) forty years earlier), the story can be read in the earth "as through a glass, darkly".

During the excavation of the cellar, English copper coins began to appear but as the diggers went deeper they found the time-pattern reversing itself, the older material generally being found near the top and the most recent near the bottom. This phenomenon was evidence that the cellar had been filled - fortunately for history from an ancient trash heap. (Domestic discards in those days remained close to their source.)

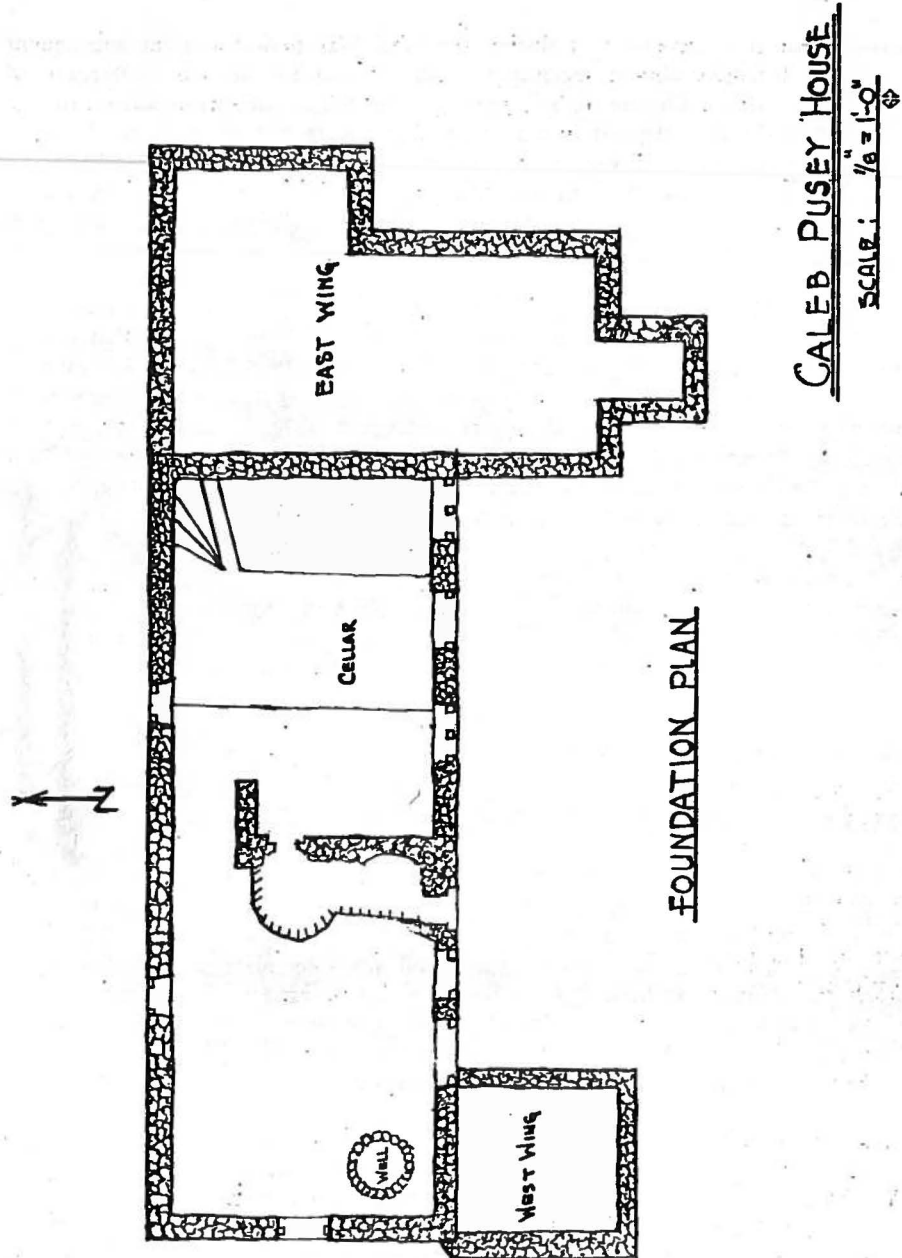


Figure 6 Caleb Pusey House Foundation Plan, as revealed by excavations.
Sketch by George E. Jackson.

Tabulating the coins reveals that during the Civil War period and the subsequent tenancy of "Upland's almost legendary character, 'Mother' Jordan" (Obituary of Emma Jordan Strand, Chester Times, January 3, 1957) an alteration was created in the pattern of the coin deposit in the cellar, changing from a generous scattering at all depths to a few pieces, all very near the surface of the fill and all but one bearing a late date, suggesting that they slipped through cracks in the floor. It is significant that these recent coins found just below the flooring are dated after 1899 when a wall was built around the Cottage, 1927 was the date of the latest coin found here.

Since William Mills, (3) who lived in Upland from 1878 to 1898, remembered going down into the cellar with the older Jordan boys, it seems certain that the fill went in after that period. One might be skeptical of the accuracy of a man of eighty-six years, as Mills was at the time of the interview, if it were not for the well-known phenomenon that as age dims the remembrance of later years, it sharpens the recollections of one's youth. In addition, William Jordan, who was born in the Cottage in 1899, was as surprised as the excavators by the discovery of the cellar. We know from Jordan's testimony, as well as from other records, that the stone wall surrounding the small property was built by the Crozer family trustees in that same year. Since the back wall of the house was being pushed off its foundation by earth pressure behind it, (the archaeologists found it fourteen inches out of line) it is reasonable to suppose that the Crozers, concerned for the survival of the Cottage, had the cellar filled at the time that the wall was built, utilizing the historic trash pile, thus clearing away an eyesore and supporting the weakened house wall.

Among the British coins which were wheelbarrowed into the cellar with the trash, the majority bear dates between 1721 and 1760 (George I and II) with twenty-five identifiable and four possible-too worn for certainty. The shortage of English silver money, of which the Colonists complained frequently and to no avail, is apparent in that, while the excavation turned up five Spanish silver coins, only one British silver piece was found, a tiny "threppenny bit" of 1692. This was "Maundy money", especially minted for the Sovereign to hand out as largesse on Holy Thursday. Picture the hue-and-cry that ensued when this precious piece was lost! Another domestic monetary disaster must have been the disappearance of the Spanish silver "real" of 1780 which had been drilled and hung at its owner's neck for safe-keeping. "In the eighteenth century, one, two, four and eight reals of Philip V of Spain were widely used" (Noël Hume, I: "A Guide to Artifacts of Colonial America," 1970).

The resentment felt toward the "fat foreigner" who mis-managed the Colonies from the British throne can be imagined from seeing the bent and battered condition of a 1776 half-penny of George III. There is another tale implicit in the French liard of the 1600's — a small copper coin probably brought back from the West Indies in trade or by a traveller such as Caleb Pusey's friend Thomas Story, who, when his ship was captured by pirates in 1708, had in his pocket "only two small French coins which we call 'black dogs'". (Thomas Story's Journal, 1698-1714. Friends' Library, Swarthmore College, Swarthmore, Pennsylvania).

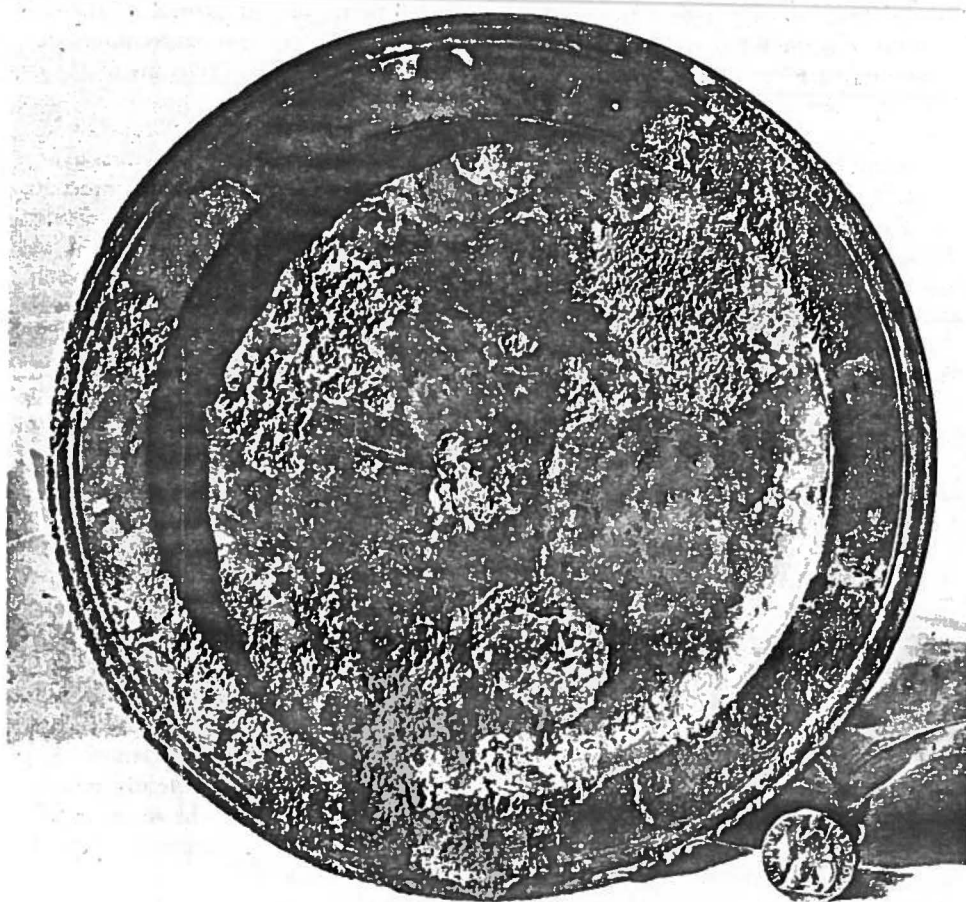


Figure 7 Pre-seventeen hundred pewter plate and an English halfpenny (Date 1699) found in the inside well of the Caleb Pusey House.

A counterfeit Spanish coin, cast in tin, may have been evidence acquired when Pusey was delegated by Chester Meeting "to speak to George Churchman concerning his evil practice of coining money and absenting from Meeting". (The Meeting evidently considered that there was a connection between the sins.) Churchman is one of several counterfeiters dealt with by the Upland Court: Charles Pickering, who came over in 1682, being the first and most important of them. He had hurried off the ship and out into the hills, searching for ore. When he found a metallic outcrop along what is now called Pickering Creek, he and a partner with the appropriate name of Tinker began to turn out coins. When haled before the Court, where Pusey produced "new Bitts" to the value of fifteen English pounds which had been paid him by the defendant, Pickering explained that he had intended only to relieve the shortage of a medium of exchange. Unimpressed, the Court ordered him to redeem his counterfeits, and fined him forty pounds to be applied toward the building of a new Courthouse. By 1685 he had paid off the debt without, apparently, losing face, for in 1690 he was elected to the Legislative Assembly (Minutes of the Provincial Council of Pennsylvania, Philadelphia, 1852).

Among the many coins dated before 1717, one particularly suggests a connection with Penn (Figure 7): the newly-minted halfpenny found at the bottom of the filled-in well, dated 1699, the year when the Governor returned to his Province from England, an event marked by the famous weathervane celebrating the partnership of Penn, Pusey, and Carpenter in Chester Mills, and when Penn and others in his party stopped for dinner with the Puseys in mid December as they rode toward Darby along the King's Highway (Thomas Story's Journal). Did this new ha'penny, so unlike the other worn coins, make the ocean crossing in Penn's capacious pocket, being presented to one of the children who later suffered the misfortune of dropping it in the well while pulling up a pail of water?

The buried coins tell their own story. Two of the earliest, found five feet underground, span the period when London was devastated by plague and fire in 1665, and ten years later when it had largely been rebuilt. This was the time when England's power and pride were laid in the dust by the Dutch whose fleet sailed insolently into the Thames River and burned the warships at their anchorage (4). The excesses of a profligate monarch and his court had impoverished the nation and broken its spirit.

During the twenty years following 1702, the lack of coins of that period found during the excavation (except for the single silver "bit" of 1720) reflects the failure to mint copper coinage during the reign of Queen Anne. James Logan wrote that: "Money is so scarce that many good farmers scarce see a piece-of-eight of their own throughout the year" (Letter to the Proprietaries, 1704). Yet, despite this shortage, the archaeologists found five Spanish silver pieces. These were legal tender until 1857. Minted by slave labor in South America and in Mexico, these bits of silver speak mutely of Indians cruelly driven by Spanish conquerors, of treasure galleons and the "plate fleet" and of the days when Spain's riches were the envy of other nations, her coins an international monetary standard.

A forgotten cellar on the east end of the extant structure, which came to light as the excavators made their methodical way around the Cottage, revealed a history unlike that of the filled cellar which was discovered first. Larger in size (extant cellar 15 feet x 7 feet 10 inches x 7 feet deep; East Foundation 34 feet x 17 feet x 6 feet deep), the signs of a devastating fire were evident. A large copper still (about the size and shape of a basketball, originally) lay flattened under the bricks of the chimney which spread across the bottom of the excavation in rows just as they fell when the wall leaned inward and collapsed. Over them lay a thick layer of brick rubble, charcoal, and handmade nails — all very wearisome to excavate. Below the remains of the chimney appeared the ghost of a wood plank floor, too decayed to be lifted out intact after it was recorded photographically.

Under the rubble lay a few sherds of "delftware" (pre-1750): an apothecary jar and a colorfully decorated plate, which suggests that a lunch had been carried in before the fire occurred. Since this is one of the few evidences of domestic tableware in the East excavation, it suggests that a lunch may have been carried in. (Perhaps it was a sandwich of hot, toasted cheese — highly recommended then as a remedy for digestive disturbances.)

The apothecary jar, its white midriff wound about by a blue-painted ribbon, had crumbled into pieces as it fell. Large, coarse earthenware pots and pans had evidently been stacked in a corner, for the base of one was marked by rim-rings of two others, and two, piled inside each other, had been fused by the heat. Heavy flared bases provided stability more necessary for a working vessel than for a food storage container. The glaze is warped and cracked and rims are bent, suggesting that they had been near the source of the fire and had been exposed to intense heat.

An unexpected discovery among the debris was in itself quite unimpressive: several fragments of pure fibrous hematite ore (iron) which, before the ore bodies in Michigan had been opened, two centuries later, could have come only from Cumberland, England. (5) These may well have been carried to Landing Ford by Caleb's good friend John Salkeld whose home was in Cumberland, to which he returned after his first visit to the Province, bringing back his wife and taking up land near Caleb's. Since the mother country charged the Colonists to search out deposits of useful ore, these may have been samples brought by Salkeld for comparison with any deposits discovered. One piece shows a rubbed spot — evidence that it had been used like a pencil to mark a vessel which was to be placed in or over a hot fire.

A large lump of antimony sulfide, indubitably imported, used in making medicine, in assay work or for fireworks; two small clay assay crucibles, one, from the very bottom of the pit, encrusted outside as though its contents had boiled over; slag, such as is produced in assay work; and a glass pestle — all lead to the conclusion that this cellar became a workshop where sophisticated assaying, alchemical or pharmaceutical work was undertaken. The counterfeit Spanish coin might even have been turned out here just as an experiment, as is suspected was the case with two roughly cast, lead half-pennies dug up by archaeologists in Colonial Williamsburg, Virginia (Noël Hume, I. "Here Lies Virginia" 1963).

The still itself may have been acquired by Caleb Pusey after the death of his friend and neighbor, Thomas Brassey, in 1690, because Caleb and Thomas Vernon made out the inventory of Brassey's possessions and a copper still was among them. A letter of Thomas Paschall's (6) in 1683 speaks of the abundance of fruits and berries, remarking that "most people have Stills of Copper" for making "good Spirits" from them.

Another curiosity which the East Foundation held was a short brick pillar (24 inches wide x 16 inches deep x 20 inches high), very well built of hard-burned brick laid in Flemish bond (alternating headers and stretchers), quite unlike the soft, poorly-baked brick in the original A-gable wall of the house which resembles that of the fallen brick chimney that collapsed into the foundation. This brick pillar, found lying on its side, over six feet below the surface, appears unsuited to support any part of the super-structure, and by its height and lack of architectural connection suggests that it may have been the heat-and-chemical-proof table on which experiments were conducted or on which the still was set.

The back or northern end of this Foundation had been disturbed by the excavation of a large trash pit which was found to contain pottery of the late seventeen-hundreds and the early eighteen-hundreds in its lower levels, and ash and cinders from coal-burning stoves (in use in the area after 1840) near the top. From this trash pit was recovered a U. S. penny of 1822.

Another disturbance was caused by heavy posts for supporting a large grape arbor having been dug deeply into the ground. The surface area had in the nineteen-hundreds been made into a kitchen garden. Here were found coins dating from 1915 to 1952, dropped by the tenants who cultivated the soil above the forgotten underground room. The grape arbor and a shed appear in an early photograph (Figure 8) of the Cottage (taken circa or about 1880), and a later photograph (still before 1899 since the wall is not present) shows the house in sadly decayed condition with nothing remaining of the arbor but the tall posts.

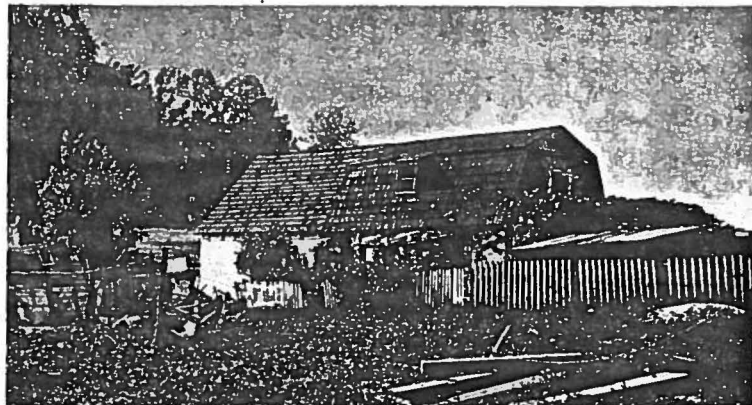


Figure 8 Caleb Pusey House prior to about 1880.

Forty-two inches down, among the fallen brick and charred wood, a 1723 half-penny of George I, newly-minted and unworn, in contrast to almost all of the English coins dug up by the archaeologists, was the latest-dated coin to be recovered below the areas of intrusion and surface disturbance. This lends credence to the belief, supported by architectural evidence, that the East wing was destroyed between that date (1723) and that of the trash pit which was dug into the north end of the Foundation in the late seventeen-hundreds.

"Almost any artifact, be it an old bottleneck, a scrap of Staffordshire pottery or the handle of a decayed pewter spoon, has a tale to tell us — providing we have the wit to interpret it. It is the date after which that type of bottle neck, that type of pottery or that handle design was first used.—It may have been any time after, from then until now, but not before" (Noël Hume, I. "Guide").

Seventeenth century Colonial windows were glazed with greenish "broad glass" or with "crown glass" (except in the very beginning when many had to "make do" with "isinglass" or oiled paper). This glass was brought over from England in "chests" or crates of a specified size, to be cut into squares or diamond shapes called "quarrels" and set in leaden strips for casement windows. Many chests of such glass and great quantities of lead are recorded in the ladings of the early ships. (See Appendix I). Few of those windows survived the Revolutionary demand for lead needed to make bullets but the archaeologists found twisted lead strips (in one case still holding part of a diamond-shaped pane) and tiny squares of greenish glass in the rubble of the East Foundation where they fell when the structure was destroyed, which suggests that the terminal date is back before 1775. The Massey House, in nearby Marple Township, part of which is dated before 1700, also was found to have sections of leaded casement windows buried in the dirt under its flooring.

Just off the northwest (back) corner of the Cottage another subterranean structure was uncovered. It was built of stone, (5 feet square, 6½ feet deep) and may have been a storage pit for ice which could be cut from the creek and layered in sawdust from the Mill.

Such pits are the archaeologists' delight because they were commonly used as handy repositories for domestic discards, in the case of an ice-house or well, after it had been abandoned, and in that of a "necessary" (privy) also while it was in use. A careless servant or clumsy child could get rid of the evidence unobtrusively when a dish was broken, rather than put it on the trash pile where someone was certain to see it and ask awkward questions.

Though its contents were almost all of the eighteen-hundreds, this pit proved to be especially rewarding, for the discards had evidently fallen onto soft material such as sawdust so that the dishes and bottles were broken into large pieces that lay where they fell rather than being reduced to small scattered fragments by exposure and

rehandling. Here was an earthenware pieplate, its bottom blackened by long service in the brick bakeoven, broken into three pieces, and also a slender pottery pitcher, minus handle, transfer-decorated in lavender (1813-1819) (Ramsey, L. G. G., Ed., "Antique English Pottery, Porcelain, and Glass."). Most of a graceful wineglass with drawn stem and trumpet-shaped bowl (c. 1750-1790), its base strengthened by having its rim folded under, was reconstructable. Medicine bottles, many carrying the names of Philadelphia pharmacists (such as "Wistar's Balsam of Wild Cherry," 1850), and one of "Dr." Dyott's dark green bottles for his cure-alls, circa 1845; a small mold-blown flask from the glass-house of Joel Bodine, in Bridgeton, New Jersey, 1846 (McKearin Geo. S. and Helen: "American Glass"), and an elegant little 'cello-shaped "scent" bottle all came out nearly whole. (Glass Collection, Historic Batsto, New Jersey). Part of a white "pearlware" cup matched fragments from the trashfill on the north end of the East Foundation, thus indicating that the two pits were open at the same time. Since the Cottage had by then become a two-family dwelling, each had its own discard pit. The cup, pieces of which fell into both pits, needs a story to account for its separation. Perhaps it was broken out-of-doors and the largest piece was dropped in the N-W pit while the smaller rim pieces were picked up later by the other family and tossed into its trash pit.

An extension of the house foundation was uncovered to the S-W front corner. This was constructed of stone and brick, 7½ feet x 10 feet x 8 feet deep, with no evidence that it ever had entrance steps such as those which lead down into the East Foundation, well-laid between bulkhead walls. It must have been accessible only by ladder through a cover of planks (perhaps with dirt on top) and it would have provided excellent cool storage. We know that Caleb made home-brewed beer (Upland Court Records) which would have to be consumed within a short time because brewing methods were crude and keeping qualities poor, hence making cool storage essential. In addition, the common drink in England, as well as in the Colonies at this period, was made from fermented fruits: "Cyder" from excess apples and "Perry" from pears. Both required low temperature storage to prevent them from turning to vinegar. An indication that this was a dark, unlit pit is shown by the niche up in the south wall – the usual provision for a lighted candle in storage areas where it was necessary to use both hands to pick out or gather up articles such as vegetables or bottles. Perhaps there were casks down in this pit, and the bound boy had to fill an earthen pitcher with beer or "cyder" for guests or customers waiting at the Mill for their grain to be ground.

It is notable that the fill of this "cool cellar" contained a large number of sherds of cups and "canns" made of thinly-turned, rather porous earthenware, which had been dipped in a clear lead glaze that turned yellow after firing, and which was hand-decorated with spots and splashes and combed patterns in dark brown. A reverse color arrangement was also used: a dark brown body, decorated with white slip which appears yellow under the glaze. These "posset" cups were in common use, especially for the drink that gives them a name: beer and milk heated together – a potion that nourished and warmed chilled bodies on cold days. This ware was manufactured in

enormous quantities in the Staffordshire and Devonshire district of England between 1680 and 1770 and was carried to the Colonies in the little British ships that bustled back and forth so busily despite storms and "contrary winds" that frequently prolonged the voyage over three months while food became weevily and water, foul. A dated mug (now in London's Victoria and Albert Museum) to which some of these excavated sherds bear a strong family likeness was made in Staffordshire in 1701. (Ramsey, *Antique English Pottery*). So it may well be that Penn and Pusey sipped their hot posset out of these very cups. Similar pieces have been selected for reproduction by Colonial Williamsburg.

The importance of such storage pits is indicated by a letter of William Claypoole, who arrived in 1683 and was sending orders ahead concerning the building of a shelter for his family. — "if possible let there be a cellar made to keep some wine and other liquors cool in" (*Historical Society of Pennsylvania* and also Barley, M.W.; "English Farmhouse and Cottage"). "A small yeoman's type of house—built early in the 17th century (had a) cider cellar underneath the parlour" (an unheated sleeping room).

The Pusey "cool cellar" also contained sherds of very early glass. Heavy dark green wine bottles and fragile, free-blown medicine vials indicate that this pit was abandoned and filled in the seventeenth-hundreds. By the time of the drawing shown in Figure 2 (done before 1827), the southwest front corner of the Cottage had a small fenced area for the family riding horse above the filled pit.

The fragments of many well-used pie-plates and cream pans (two of the latter appear on a bench beside the east door in Figure 2) tell us of the baking and dairying that were important parts of the housewife's busy life. There were cows to be milked and cream set to rise, the pans scrubbed and put out in the sun to dry. Probably the bound boys and girl: Alexander Ross, Thomas Bullen, and Mary Rayle had this among their "chores". Some of these cows figured in a letter written by one of the executors of the estate of Jonathan Dickinson, a part-owner of the Mill. (Isaac Norris to George Claypoole, 26 June, 1723. *Historical Society of Pennsylvania*). "Wm. Hinton was at my home just now to let us know that John Dickinson (son of Jonathan) was at the Vinyard yesterday, that he had locked-up the Barn with the Corn and—had taken away the kees, that he could not get either Straw or other necessity to Fodder the Creatures. Upon which I went to John to let him know what Wm. said, and Desired him to let me have the kees. He told me that he had possession and would keep it". (Pleasant fellow, this John!)

This Dickinson estate was the former Worley Plantation (adjoining the Cottage) which had to be mortgaged by the unhappy Executors in payment of debts because Dickinson's property in Jamaica could not be liquidated quickly enough. The two Worleys, Henry and Francis, were sons of Ann Pusey by her first marriage and were closely involved with Caleb's business ventures.

An historically-interesting feature of the Cottage structure was revealed when the old plaster covering of the stone walls was removed by sand-blasting. It is a pair of cut gray stones and a smaller fragment or two that had been built into the southeast quoin (or

corner). Investigation proved them to be sections of a worn millstone which was identified by Dr. Edward H. Watson of Bryn Mawr College as having come from millstone quarries near the Rhine River in Germany. Such stones are described in "The Illustrated Exhibitor and Magazine of Art" (Cassell, London, 1852). "The millstones employed in grinding corn require to be made of a peculiar sort of stone. Most of the stones employed in England for this purpose are procured from the quarries of Nieder Mendig in Western Germany. At about ten or twelve miles from Coblenz is a small town called Andernach, the chief trade of which is in millstones.—The miners have to cut a way through a superincumbent layer of soft, porous stone till they come to a layer of hard, blackish heavy stone—yielding sparks when struck with iron. This is the millstone, and requires good and well-prepared tools to work it; it is supposed to be compact lava from an extinct volcano".

Penn himself in 1682 brought over the mill "ready-framed" (pre-cut) in England to grind grain and saw wood for his settlers. Caleb's nearest neighbor to the north was Thomas Brassey, head of the Committee of Twelve of the Society of Free Traders, commissioned by Penn. In Brassey's lading on the "Freeman of Liverpool" in August, 1682, are listed two millstones and about two tons of lead (Appendix I). Probably these were the stones intended for Penn's mill. The date when at least one of them was broken and re-used as building stones in the S-E quoin of the Cottage must have been between 1692 when Carpenter persuaded his partners to move the Mill downstream a short distance ("the Mills being much decayed," 1705 deed), and the period of the sketch made before 1827 whereon they are indicated. The pieces are worn flat instead of having "lands" for grinding grain—sharp-edged raised surfaces that must be regularly re-cut, a task requiring an expert hand and several hours during which time the mill is temporarily out of service. There is a story in the histories of Ashmead ("Historical Sketch of Chester" 1883) and of W. H. Egle that the Penn-Carpenter-Pusey Mill burned and was rebuilt by Pennell, a later owner, in 1745. And in 1777, General Washington is said to have ordered the stones removed and hidden to prevent the British army from commandeering the flour. (7) In a race against time and approaching troops, the Mill may have been run day and night to provide a store of flour for the local people, so that the stones were not sharpened and the "lands" were worn flat. Of these possibilities, the first seems the most probable.

The corner of the house into which the mill-stones were built shows signs of severe damage. The early woodcut shows no window near that corner, yet, after the plaster was removed, it was evident that a window there had been crudely filled in. A large section of the adjoining east wall had also been repaired in such rough-and-ready fashion that it threatened to fall on the excavators. The mortar contained not only parts of glass bottles but a number of discarded knives and forks with carved bone handles. These were in use in the late seventeen-hundreds and had evidently been tossed in the trash, as too old-fashioned or too worn for further use, and material from the trash pit had been used in making the mortar.

The trash fill which the archaeologists found as they dug out the cellar under the East room of the extant house proved to contain artifacts which span the whole period between 1682 and 1900. Fragments of English "delftware" dishes (1650-1750) are

followed by thinly turned, small grayish-white salt-glazed stoneware teacups and saucers (to 1770). Then the sturdier "scratch blue" variation appears. These are accompanied by dainty cream-white, small, handleless, salt-glazed stoneware cups (tea was very expensive though exceedingly fashionable) decorated in colored and raised ("sprigged") floral patterns. These, with the porcelain tea sets from China, were used in England at that period as ornaments on mantels and little shelves built in bewildering array wherever space could be found. (Thomas, Gertrude S.: "Richer than Spices"). No other fine English tableware was available until the late seventeenth-fifties when Wedgwood and Whieldon perfected a liquid, lead glaze that would evenly coat and not discolor a hard cream-white clay body. The result of this discovery was that the English Staffordshire potteries began turning out "creamware" in such prodigious quantities that travellers all over Europe as well as in Britain and the far-flung Colonies were sure to be served at every inn on Staffordshire dishes. (St. Fond: "Travels In England and Scotland," early 19th century). The cups were still made without handles, in the Chinese fashion, though larger now and were decorated by hand though in a limited number of stereotyped patterns and colors. They were accompanied by deep saucers intended to be used to cool the beverage before drinking. Such quantities of this ware were brought into British colonial ports that any excavation around a house of the period in any of the Colonies is almost certain to bring up sherds that would appear to be parts of the same tea sets. (Excavations at the site of the Collins-Johnson House, shore of Delaware Bay near Taylor's Bridge, Delaware, now moved to Odessa; the Old Academy, Brandywine Village, Wilmington, Delaware, both done by members of the Archaeological Society of Delaware; Pemaquid, Maine; Rosewell in Virginia; Mercer House in Marlborough County, Va.; Antiqua, British West Indies, near Admiral Nelson's Dock, where the sand is still littered with pieces; and the Brinton 1704 House, Chester County, Pennsylvania, are typical examples. (8))

The Pusey cellar provides many specimens of Wedgwood's "improved pearl-ware" and its feather-and shell-edged decoration called "Leeds" by many collectors and antique dealers. There is a tiny spout of Wedgwood's "black basaltes" ware made of hard-fired, dry-bodied clay. These black tea sets are said to have remained popular for a long time as dishes used during periods of mourning; they are still produced by the Wedgwood factory. The exuberantly colorful "colly-flower" ware, also developed by the same gifted potter (which was copied in Phoenixville, Pennsylvania, a century later and is still made today in Portugal) is represented by several fragments. There are sherds of thin, hard, gleaming black manganese-glazed pitchers, and rim-sherds of a white tin-enamelled "faience" platter imported from France during Revolutionary times: ("Faience" was the French equivalent of "delft".)

The Non-Importation Act, which kept out British products just before and during Revolutionary years, was followed after peace was declared by mass-shipments to make up for lost business and broken dishes. The German salt-glazed stoneware, however, of which we have parts of several "canns" and mugs, failed to reappear, (Noël Hume, I: "Artifacts") being supplanted by the products of local potters, many of whom had migrated to the Colonies from Rhineland potteries. Some, perhaps, were among the Hessian mercenaries abandoned in America by the defeated British forces when they shipped-out for home. (One of those historical tid-bits left out of the books for young and presumably tender-minded students.)

Then, as now, babies had to be toilet-trained, and the excavation turned up three or four very small pottys, commonly described by archaeologists as "posset cups", though, with only one handle, they would be quite unmanageable when filled with that popular colonial potion. Their true purpose is revealed by an addition to two of the Pusey House examples. On the inside of each black base is a suggestive blob of light-brown, glazed clay. This seems to be the same psychological motivation as painting a picture of an animal or a toy on the bottom of a toddler's cereal bowl. (9)

The cellar fill was sprinkled through and through with hand-made pins, their heads twisted like miniature turbans, dating before about 1800 when pin-making machines came into use. Thimbles of every size accompanied the pins, one so tiny that it fits the finger of a modern girl-child of three years. People were smaller in those days so perhaps its wearer was not quite so young, though children's hands were seldom permitted to be idle lest Satan find work for them to do. A story that part of the Cottage was used for a time as a school is borne out by fragments of slates and slate pencils. There are bone dominoes, parts of two cast-lead horses and a red-painted Indian, a small metal whistle that still gives forth a tweet; jew's harps, wee doll dishes, parts of many china dolls, and dozens of marbles made of materials from hard-baked clay and ground stone to glass.

Whieldon's "clouded" or "tortoiseshell" dishes of the 1750's are represented by one cup and most of a Rockingham pitcher in mottled brown with a Bellarmine-type of decoration: an old-man-of-the-mountain face. This type of pitcher was later copied in Bennington, Vermont, but with handle molded in the form of a long, lean hound.

The period when the cottage and the Mill were owned by the Shaw brothers (1752-1785) is represented by a remarkable amount of Staffordshire tableware: with hand-decorated as well as the transfer patterns such as "willow" which was first designed in the early eighteen hundreds and has continued to be popular to the present day.

"Spatter" or "sponged" dishes from the Federal period (circa 1790) decorated with an eagle, and later, plainer pieces in several colors are represented by many fragments.

More than thirty-five gunflints date from before about 1840 when flintlocks generally were converted to percussion firing. The six Indian projectile points, one of which was picked up on the surface just outside the East door, were not the result of an attack but probably were part of a collection which William Mills remembered was in the Jordan cellar along with specimens of local garnets. Relations with the nearby Lenni-Lenape Indians were amicable, as we know from early accounts, and the deer and turkey meat which they provided at low cost were of inestimable help to the settlers during their first hard months. (Proud: History of Pennsylvania: "The Indians were remarkably kind and assistant to them, in diverse respects.")

There are several musket balls, both trimmed and untrimmed as they came from the mould, one of them bearing marks made by human teeth.

The West room of the extant house was found to have no cellar. Its floor had been laid on "sleepers" or large stones. It did, however, contain an unexpected feature. Normally, an excavation is stopped after reaching "sterile soil" (containing no artifacts and showing no disturbance) but an extra six inches of digging revealed a circle of stones which proved to be the top course of a filled well. Its wedge-shaped stones were laid without mortar but with great precision, the circle having an internal diameter of thirty-six inches.

The excavation of a well is a particularly difficult and potentially hazardous matter, so much so that Noël Hume, who has had extensive experience with such archaeological problems, warns: "Exciting and demanding though they may be, wells can be extremely dangerous, and their excavation calls for experience and careful planning." (Noël Hume, I: "The Wells of Williamsburg." 1970).

Since there was no record of this well, which was a surprise even to William Jordan who had lived in the house, the archaeologists had no idea how deep it might be. (One only a few miles distant, in Aston, was dug to a depth of fifty-five feet.) So a wooden framework was erected over the opening, and the excavators went down on a bo'sun's chair which was suspended from a winch, their heads protected by a hard hat such as miners wear. The fill turned out to be principally clay soil, containing only such scattered artifacts as might have been scraped up in collecting it. (To our disappointment, it had not been used as a trash pit.) About eight-and-a-half feet down, a round, dark-stained depression began to appear in the center. This turned out to be part of the decayed top of a wooden "four-square" or "cucumber" pump, which is simply a tall squared tree-trunk, reamed out from top to bottom, with a long iron pump arm at the top and a wood-and-leather intake or "foot" valve near the base. This massive, water-logged apparatus, five feet high, intact below the water table, had to be hoisted out before the excavation could proceed. Below it was found a handmade iron pulley wheel (pronounced unique by members of the National Park Service) which had lifted buckets of water before the pump was installed. On the silt at the very bottom, fourteen feet below the rim, was a pewter plate in remarkably good condition, its maker's mark (Richards) still legible. According to Charles F. Montgomery (Winterthur Museum) this plate was made in England before 1700 (Figure 7). Nearby lay the 1699 halfpenny and a fragment of gold, possibly part of a piece of jewelry. Nuthulls and peachpits near the bottom suggest that the well was out in the open originally where such organic refuse could fall into it.

Below the last course of stones was found the flat wooden ring or "curb" on which the stones were laid and built up as the ground was dug out from under the ring to lower it, course by course, as the well went down (Noël Hume I: "Wells"). The wood in the curb and pump had been preserved under the protection of the water. This shallow surface well (normal water level six to eight feet above the nearby Chester Creek) had evidently become polluted by its proximity to the privy and the stable. It was just such pollution in early Philadelphia where houses were built close together, each having a "necessary" and a well, which gave water a bad name in Colonial times. Pollution of the water supply began early. The Council in Philadelphia passed an Ordinance in 1701: "that there shall be no slaughter-house suffered in, or about the town of Philadelphia, but over the river Delaware, where the tide may carry off all the garbage, gore, etc."

The all-important question: "What did the archaeologists find that probably belonged to the Puseys?" can be answered positively in the case of two spoons marked with the initials of Caleb and Ann (Figure 9). Of dessert-spoon size, cast in "latten" or hard brass, still retaining traces of the tin dip that was applied to make them suitable for table use, the handle flattened and notched ("trifid"), they are typical of spoons made in England in the last quarter of the seventeenth century. They evidently had been brought by the newlyweds among their household effects when they sailed for their new home in Penn's Province in 1682. When the spoons were broken, since metal was scarce and very expensive because it had to be imported, the pieces were saved with other old metal for re-casting and became buried under burned beams and broken brick in the ruins of the East foundation.



Figure 9 Fragments of tinned brass spoons which belonged to Caleb and Ann Pusey. Photograph by H. O. Albrecht

Two more spoon bowls, marked with the "dagger" of the London Cutlers (a mark in use in the sixteen hundreds), identical in size, shape, and material but lacking the initialled handle, can be assigned to Pusey ownership with considerable certainty. The handle of a small pewter teaspoon is marked with the crowned X of Exeter, England, used before 1701 (Weyler, Seymour B.: "Book of Old Silver"). This too is probably a Pusey spoon and came from the fill of the well.

The pewter plate from the bottom of the well is early enough to have been a Pusey possession.

Among the glassware there are heavy, squat, dark green bottles, iridescent from long burial in the earth, their short necks topped with "string rims" to hold in their corks; a fragile, irregularly blown blue-green "case" bottle found shattered on the stone steps of the cellar; parts of wine glass stems with air-bubble inclusions; some of the thin blue hand-blown pharmaceutical bottles which we find listed in the ladings of the 1682 and 1683 ships and sherds of "delftware" decorated with a colorful carp fish in the Chinese manner (1662-1722) -- all of which the Puseys might well have used.

A salt-glazed stoneware mug made in the Westerwald area of Germany, bearing the cypher of Queen Anne: A R, crowned (made between 1702 and 1714) reached Chester in the hold of some English ship, since all goods for the Colonies were required by law to be carried in English "bottoms" -- a provision that would in time become irksome beyond endurance. Another mug or "cann" bears the cypher of King George, probably George I (1714-1727). A stoneware jug decorated in brown and cobalt swirls, and parts of two similar mugs may have arrived at Chester Mills before the Puseys moved to London Grove.

No general survey of the results of the excavation of the Pusey House could do justice to the bewildering amount of material which the archaeological excavation revealed. Pennsylvania "Dutch" type pottery has received no attention in this account, not being cogent to the early occupation, but it well deserves a report. The great quantity of old glass and broken tobacco pipes are now being given special study, as well as the metals which came to light, including the coins which have been evaluated by specialists. From the historical point of view, it is frustrating to find that our most valuable coin from the collector's viewpoint is not our earliest, not even our 1699 half-penny, nor the penny specially minted for the Virginia colony in 1793. The honor is equally divided between a halfpenny of 1723 and a U. S. dime of 1814.

There should be several illustrated papers, including the report of the architects, to complete the account of the history that has been found hidden in the earth at the home of William Penn's friend and partner, Caleb Pusey.

FOOTNOTES

1. Per (Peter) Kalm: "Travels in North America, 1748 - 1750". "Since it has frequently happened that a disastrous fire has broken out because of having the (large) oven in the cabin or dwelling house, the custom has now been abandoned entirely. So I have not seen an oven in a cottage anywhere. It is now built separately in the yard, a short distance from the house, and is generally covered by a little roof of boards to protect it from rain, snow, and storms".
2. "Mother" Jordan, Upland's beloved midwife and confidant, lived in the Cottage for over sixty years before her death in 1931. Her grandson William was born there, returned for some time about 1915, and visited it during the beginning of its restoration but died before it was brought to completion.
3. Interview, Sept. 3, 1964, with William Mills of Ridley Park. Formerly Police Chief in Philadelphia, cousin of Robert E. Swayne, Rte. 100, West Chester, Penna., whose Grandmother and Great-Grandmother lived in the Pusey House in 1863 when the Great-Grandfather, Samuel Saxon, enlisted in the Upland Volunteers, Co. B. 45th Penna. Inf. Militia, under Capt. George Crozer.
4. Diaries of Samuel Pepys, 1660 - 1669, and of John Evelyn, 1640 - 1706.
5. As pointed out by Elwood S. Wilkins, Jr. fibrous goethite of very similar texture was mined at Iron Hill, Delaware and Mineral Hill, Pennsylvania (West of Media), at an early date. This could possibly have been converted to hematite by the heat of the fire which destroyed the building. As against a local origin of the hematite may be cited; (1) the somewhat unlikely arrival of just these ores at Landing Ford, (2) their conversion to hematite without excessive splintering from loss of water, (3) the occurrence of the specimens among objects of indubitable European origin and (4) the suggestion that the work in this early wing was chiefly on medicine or or precious metals. Only an elaborate trace element analysis could positively identify the origin of the specimens. Attempts to convert local fibrous goethite to compact hematite at temperatures of 300, 600 and 800°F rather support the assumption that the specimens were hematite from the beginning. The matter is of interest because of the great dearth of documentary material on early American mining and testing procedures, as well as the possible connection with Pusey's friend in Cumberland. The Pennsylvania Writers Project: "Pennsylvania. A Guide to the Keystone State". The University of Pennsylvania Press, June 27, 1940, p. 72. "—as early as 1684 William Penn referred in a letter to an "iron hill" in what is now the State of Delaware". "In 1708 rumors of the mining of iron in Pennsylvania caused him to write from England to his Deputy Governor, John Evans: "Send me some of the ore, to get it tried by some of the ablest separators here." (Herbert O. Albrecht)
6. Myers, Albert Cook: "Narratives of Early Pennsylvania, West New Jersey and Delaware, 1630 - 1707".
7. There is no confirmation in Hazard's Pennsylvania (1853) Archives of the order to remove the millstones (an impractical method for putting the mill out of operation). A report from General Potter to President Wharton, dated 27, Octr. 1777 says only: "— there is a number of the Enemy Ships laying at and below Chester, about 60. I have removed all of the Beef Cattle and the flower that was in this part of the County."

8. Watkins, C. M. "Cultural History of Marlborough, Va." Smithsonian Bulletin, No. 253. Noël Hume, Ivor: "Excavations at Rosewell," in Virginia.

9. A similar, confirmatory sherd has just been found (August, 1970) among the discards of a potter's kiln in Flintshire, No. Wales, Great Britain.

APPENDIX I

Ladings of the 1682 and 1683 Ships

(Condensed from Balderston, Marion: Penna. Genealogical Magazine, Vols. XXIII, XXIV, 1963, 1965, and Public Records Office, Barbadoes.)

These lading lists covered only goods not carried as personal possessions by the colonists, all of which were not listed or dutiable so do not appear in the Custom House records. Merchants sent over goods for which the need in the Province was urgent; the immigrants carried merchandise which they hoped to sell at a useful profit; and the Society of Free Traders dispatched such items as the Mill ("ready framed"), the millstones, and great quantities of lead as well as hogsheads of glass-sand, committed to the care of Society members or servants. Most of the ships destined for the Province docked at Chester, so goods could be brought directly up the Creek to Pusey's Landing Ford Plantation or carried from the Delaware on horseback.

Horses were not shipped over (though Penn sent two from Chester to a friend in Barbadoes), but the frequent listings of saddles and bridles, saddle blankets and whips indicates that there were horses available to those with the necessary money. Such valuable property could not be traded for or bought with anything but good "unclipped" silver or gold - usually Spanish.

Favorite beverages are suggested by the listings of "strong waters", malt, aquavita, "one-half tun of strong beer", hops, brandy.

Grindstones (also called "grindlestones") which were probably whetstones, were sent in large numbers but the related scythes and sickles must be hidden among "wrought iron".

Window glass and "old casements", as well as lead for window comes and for shot.

Copper, pewter, iron (wrought and bar), tin, brass, and steel. Three thousand pounds of lead in "pigs", tinware, silver plate, clock works, hour glasses and "nurseryware" which quite probably included the little chamberpots such as were found in the Pusey House excavation.

"Irish" rugs and "bed" rugs (for covering the ropes on rope beds), blankets, and many coverlets of wool and hair.

Linens, felt hats, cottons, "stuffs with silk", bodices, sheep leather gloves, straw hats, "caster" (beaver) hats, shoes, wool hose, calicoes, serges, neck cloths, "made garments", caps, capes, silk thread, "Penistone frieze" (a heavy felted and napped wool, used for rain-resistant cloaks), "haberdashery wares" (which covered a wide range of small items such as we call "motions"), duck and ticking, wrought leather,

flannel, haircloth, sacking, dimity and lace, "whisks" (either neck scarves or birch twig bundles used in cooking), linsey-woolsey curtains and valances (for beds), as well as the ever-useful "bays" (baize).

"Shod" shovels (carved from wood with a "shoe" or iron), nails, powder and shot, dressed skins, cordage, hemp, wool cards, bellows, a rope-twisting mill, cardboard, earthenware, apothecary ware and bottles, iron and brass pots, fishing net, flax, "turnery wares" (items made of wood), an anvil, but only one entry of wheel barrows, two pairs of cart wheels, large and small millstones; one shipment of 8000 tiles, 14,000 bricks in another, 26,000 in a third; one shipment of "sea coal", a parcel of hatmaker's tools, churns, sieves, and milk pans (large numbers of these turned up in the Pusey House excavation). Painters' colours, dyes, white and red lead, milking pails, soap, candles, ochre, clover seed, ten bushels of grass seed, and six bushels of hayseed and dust! One bundle of brown paper. Wax, alum, starch, glue, linseed oil, "blacking and blueing".

"Yorkshire" cushions, leather cushions, and two "flock" beds (wool-stuffed mattresses), "chayres", looking-glasses, and over two thousand pounds of "printed books". (These early settlers were decidedly literate.)

The "Unicorn", whose passengers are listed as Quakers and Presbyterians, thriftily carried three hundred English pounds' worth of "old" Half-pence and Farthings to ease the shortage of a medium of exchange.

Tobacco pipes were sent over by the large and small gross, giving evidence that smoking had already become one of the necessities of life.

Butter, cheese (over three tons in one shipment), pease, oat and wheatmeal, nuts, "lofe" sugar, honey, "biscuit", salt, flour, barley meal, fat, bacon, and beef. (Penn: --"the greatest hardship we have suffered hath been salt meat")

As soon as the settlers were self-sustaining, they sent return shipments of pork, corn, (wheat), hoops, staves, pease, "tarr", meats, "sparrs", "flower", butter, timber, fish (From the Barbadoes port records). The flavor of butter, carried in the hold with all the other odorous products on voyages lasting from one to three months, must have left something to be desired!

Since whaling was carried on in Delaware Bay, whale oil was undoubtedly a trade item for a time until the pollution of the water caused the fishing of all kinds, once "incredibly good", to decline.

By 1683 the records of the Barbadoes port indicate that the trade in slaves was already in full swing. It was not long before Samuel Carpenter was requesting his correspondent "not to send any more negroes, for our people do not care to buy". It is grimly ironical that the "Love and Friendship" of London arrived with two hundred negroes from Madagascar, the little "Amity" of London which carried Penn's colonists on another voyage, had as her lading to Barbadoes "60 ass. negros, 40 bulls and cows", while the "Speedwell", of one hundred tons "burden" which also brought Penn's colonists, carried five hundred and seventy negroes from Madagascar to Barbadoes.

**A UNIQUE "TD" CLAY PIPE
(AND ASSORTED ARTIFACTS)**

L. T. ALEXANDER

ILLUSTRATIONS BY JOHN F. SWIENTOCHOWSKI

DISCOVERY: In October of 1970, seven clay pipe bowl fragments, sixteen pipe stem fragments and other artifacts were brought to the attention of the writer by Mr. Phil Perkinson of Raleigh, North Carolina. Mr. Perkinson recovered over 1700 items (including the pipe fragments) from a pit he excavated in Warren County, North Carolina. Principally it is to the pipe material that the present paper is directed.

THE SITE: The area, on which Perkinson's pit is located, was recorded by the University of North Carolina, Department of Anthropology in their "River Basin Survey" as site number WRv49 and was noted as providing cultural material from the Early Archaic period through into the Woodland.

From the site, Perkinson has collected and recorded artifacts ranging from fluted Paleo types of Dinwiddie chert to triangular-type points from the Late Woodland and Historic or White-contact periods. The site covers about thirty acres on a high bluff overlooking the Roanoke River, approximately twelve miles North-East of Norlina, N. C. and is within one thousand yards of a documented Indian trading path which lead to a ford, crossed the Roanoke and proceeded on its way.

THE PIT: The pit was 6 feet x 8½ feet in area and ranged in depth from 48 to 52 inches. Eleven stratification features were uncovered but some layers intruded into others and therefore were not "sealed". A profile of the pit leads us to believe that it was used as a repository on nine different occasions and Mr. Perkinson tentatively describes the pit as "One dug for clay in order to make bricks and then was filled with refuse".

Indian and White-contact material was scattered throughout the pit and included the pipe fragments, which will be discussed in detail, plus crude bricks and bats, 30 buttons of pewter, bone, glass, brass, silver and silver-plated brass as well as a two-tined iron fork, a bone fan-blade, delftware and other pottery fragments. Items of Indian origin include a polished axe, a 4" Palmer point, a tubular banner stone, a polished celt, a 5" blade, a perforated cone of soap-stone, an Indian clay elbow pipe and a crystal quartz end-scraper.

THE PERKINSON TD PIPE: Pipe number 1 in the accompanying illustration could be described as well-made. The rim of the bowl is parallel with the stem which extends beyond a spur molded with the letters T and D, one on either side. On the back of the bowl are also the letters T and D with a decorative motif above and below the letters, all within a circle, marked by a type of rouletting.

The pipe is distinguished in that there is an extraneous hold drilled into the back of the bowl beneath the encircled TD. The maximum diameter of the hole measures 0.225 inch, and the minimum diameter is 0.165 inch. The hole appears to have been made by a stone drill possibly of Indian origin. The hole resembles those seen frequently on repaired Indian clay pots. On this pipe, however, there is no crack nor second hole such as one would find on a repaired Indian pot. Therefore, it is tempting to postulate that the hole was drilled into the bowl in order to suspend it with a grass cord or leather thong from an Indian's neck as his prized possession.

DATING THE TD PIPE: Diagnostic traits which aid in identifying and dating this pipe are as follows:

1. Both spurs and initials on spurs appear in the 1680-1695 period (Oswald, 1960) thus precluding an earlier dating.
2. The rim of the bowl being parallel with the stem would suggest a date later than the end of the seventeenth century (Oswald, 1960).
3. Compared with other TD pipes the writer has studied, this one has a thinner bowl and the spur is both longer and narrower. These characteristics would tend to date it toward the middle of the eighteenth century or even a bit later.
4. Referring to the distinctive marks on the back of the bowl, Walker, who has published the most comprehensive paper on TD pipes, writes: "In the earlier pipes the circle-surround is made with a rather delicate denticulation, later it becomes rougher and sometimes a continuous line; the motifs generally become rough, almost like squiggles, in later types".

Inasmuch as the circle and motifs within the circle are relatively well-made on this particular TD pipe it could very easily belong in the 1755-75 period. (Tentative date - Walker, 1971.) Further, Walker (1966) describes similarly decorated bowls recovered at Louisbourg (1720-1760) and quotes Omwake who describes two variants of the encircled TD motif on "slightly divergent bowl shapes; one dating 1755-1765 and the other 1765-1780 recovered from Fort Michilimackinac".

The Perkinson pipe is most surely English in origin. There are nine English pipe makers known to have used TD in marking their pipes (Oswald, 1967 and Atkinson and Oswald). Their names, locations and dates are listed below:

Thomas Dean - Bristol 1643
Thomas Darke - Broseley c 1700
Thomas Dennis - Bristol 1734
Thomas Dormer - London 1763 with another address in London 1768
Thomas Duggen - London 1823-8
Thomas Davis - London 1828
Thomas Davis - Birmingham 1835
Thomas Davidson & Co. - London 1869-82
Thomas Davidson Jr. & Co. - London 1883-90

The bowl form of Perkinson's pipe rules out the Bristol and Broseley makers, as well as the nineteenth century makers. This leaves us with one feasible pipe-maker, Thomas Dormer. Although Dormer is first listed in Mortimer's Directory (Oswald 1967) as working in London in 1763, Walker (1966) suggests he may have been in business as early as the 1750's and as late as the 1770's. This suggestion is compatible with Calver and Bolton's revelation of similarly decorated bowls found on American Revolutionary camp sites.

PIPE NO. 2: The bowl form of this pipe is usually referred to in pipe literature as "American Export Style" or "Bristol Export Type" (Oswald 1969). There are no marks or initials to date or identify this pipe with any specific pipe maker. However, somewhat similar pipes are described and illustrated in papers published both in England and the United States. Those from England (Oswald 1955 and 1967 as well as Atkinson and Oswald) assign dates ranging from 1680 to 1740 to this bowl form whereas Noël Hume 1970, reporting finds in America, places them in the 1720 to 1820 period.

An illustration on page 265 of "Here Lies Virginia" (Noël Hume 1963) shows a painting of Indian Chief TISHOHAN "An English pipe suspended from his neck". The pipe is in a pouch. The portrait of TISHOHAN was painted by Hesselius in 1735! The pipe in the illustration is somewhat similar to the one here under discussion. Although artists are known to take certain liberties at times, the style of pipe in this painting cannot be denied as belonging to the eighteenth century, possibly the early part.

Bowls of this type (Oswald type 9c - Oswald 1955) were usually not marked between the early eighteenth century and the early nineteenth century. Therefore, this unmarked pipe could be dated somewhere between circa 1700 - 1800. Although one cannot rely on a single pipe stem fragment, it is of interest to note that the stem hole diameter of this specimen is 5/64th inch and using Harrington's chart (Harrington 1954) would place it in the 1710 - 1750 period.

FIVE ADDITIONAL BOWL FRAGMENTS: None of the additional bowl fragments from this pit could be matched and apparently are parts of five different pipes. They are neither large enough nor show sufficient diagnostic traits to date or otherwise identify them.

PIPE STEM FRAGMENTS: Sixteen pipe stem fragments were recovered from the pit. Eleven of them carry stem hole diameters of 4/64th inch and five of 5/64th inch. It is generally agreed that sixteen pipe stem fragments are not considered enough to offer valid dating. Lately, however, writers on the subject of clay pipes are including pipe stem hole diameter statistics in their reports. For this reason I mention that use of Harrington's chart produced a date of 1730 - 1775 for these sixteen stem fragments. Applying Binford's formula to the same stem fragments we arrive at the date 1766.88. (For opposing views on stem hole diameter dating see Chalkley.)

IRON FORK AND FAN BLADE: Early in this paper we mentioned a two-tined, iron fork and a bone blade from a fan. The fork might readily date circa 1775 and the fan blade in the Louis XV period of 1715 - 1774 or perhaps a bit later.

SUMMARY: In light of the diagnostic characteristics ascribed to the various artifacts discussed in this paper, a date of 1755 - 1775 might reasonably be assigned to the two bowls and sixteen pipe stem fragments found in the pit on the Roanoke near Norlina, N. C. Certainly, the TD pipe is a unique artifact.

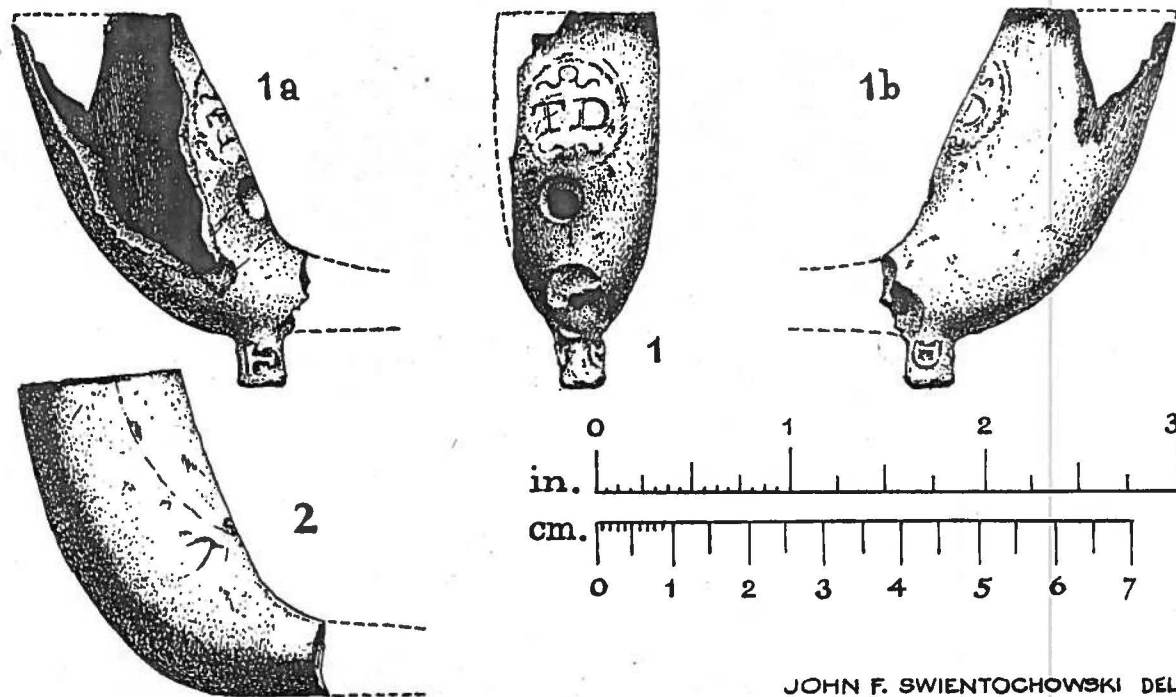
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A unique, drilled clay pipe found in Warren County, North Carolina.