

DATED WINDOW LEADS FROM COLONIAL SITES IN ANNE ARUNDEL COUNTY, MARYLAND

Al Luckenbach and James G. Gibb

Abstract

Archeologists often find fragments of milled window leads on Colonial period sites. These seemingly insignificant metal scraps can supply more precise construction or renovation dates for sites than do coins or ceramics, and they illuminate relationships among colonists, and between colonists and manufacturers in Europe. This paper briefly discusses the importance of marked window leads, and describes examples dating from 1647 to 1745 recently recovered from colonial sites in Anne Arundel County, Maryland.

Introduction

Archeologists have succeeded where Medieval alchemists have failed, by learning how to turn lead into gold. Well, not gold exactly; but something valued nearly as much, the precise dates of construction or renovation for excavated archeological house sites. Grooved strips of lead that held panes of glass in 17th and early 18th century casement windows can bear the name of their manufacturer, or the year in which they were made (see Egan et al. 1986; Hanna et al. 1992). Usually twisted and broken into small pieces, window leads recovered from archeological sites not only can provide precise dates, but also suggest links among the colonists that are not as readily apparent in sherds of pottery or bottle glass. A number of marked window leads have been recovered from early colonial sites in Anne Arundel County, Maryland. This paper describes these finds and relates them to window leads recovered from other sites in the region, most notably in St. Mary's City and along the James River in Virginia.

Window Leads in Early Modern Buildings

Most readers are familiar with ornate, stained-glass cathedral windows, in which glass panes, cut into a variety of shapes and sizes, form a geometric design or a biblical scene. In such windows grooved lead strips, or "comes," hold the glass in place. Depending on the glazier's design, comes either will blend into the background, unnoticeable in the larger image, or they will accentuate the design and serve as an integral part of the overall image. Although leaded glass window

design reached its zenith in ecclesiastical architecture, humbler designs appeared on mansions and common houses during the 16th, 17th, and 18th centuries.

Large sheets of glass were difficult and expensive to make prior to advances in glass-making technology in the late 17th century. Glaziers used webs of grooved lead supports to construct large windows from small pieces of glass. Window panes, or lights, were usually triangular or diamond shaped and measured a few inches on each side. A complete leaded window looked like a regular lattice work (Figure 1). Nodes in the lattice work are slightly pronounced as a result of the solder that held pairs of window leads together.



FIGURE 1. Leaded casement window.

The completed windows usually were fixed so that they could not be opened or placed in casement sashes which opened like a door.

The technology for making window leads was fairly simple. Lengths of cast or drawn lead rods were inserted into a hand-powered milling machine. Opposing wheels turning in opposite directions extruded the rod, creating grooves on either side. The wheels of most milling machines resembled large face gears with a series of teeth cut into their edges. The teeth grabbed the lead rod and minimized slippage as the rod passed between the two wheels. As a by-product of this process, many window leads exhibit a series of ridges or denticulations in the grooves called "milling." The edges of the glass panes rest on these surfaces.

For reasons not yet fully understood, many of the milling machine wheel edges were embossed with a date, initials, a name of an individual and/or city. Window leads milled by such machines bear not only the ridges, but the embossed names, dates or initials. Whether these inscriptions refer to the machine manufacturer or the glazier, and why anyone would go to the expense and trouble of cutting the milling machine wheels to create this effect, is uncertain. Given that the dates were periodically changed, this behavior may have something to do with quality control within the English craft guild system. If that is true, the lack of embossed names on window leads could indicate an origin outside of the jurisdictions of the English guilds; i.e., in communities other than such large cities as London and Bristol, or in other countries such as the Netherlands or Scotland.

From an archeologist's perspective, window leads, particularly those that are dated, represent highly important data. First, of course, a window lead indicates that a structure on a site had a window with glass, rather than oiled paper, wooden lattice work, or no covering at all. While this may appear to be a minor point, all 17th century dwellings in the Chesapeake Bay region did not have glazed windows. For poorer households, and for slaves and servants living in simpler dwellings than their masters, windows were often covered only with wooden shutters.

Marked window leads can provide precise dates of construction or renovation. Since we know little about why window leads were dated, we cannot be sure how long a particular inscription was used by a glazier; however, extant examples suggest that glaziers changed dates on their milling machines at least every two to three years, and perhaps annually.

Embossed names on window leads are important clues for purposes other than dating. In the absence of an embossed date, a name could help deter-

mine when a window lead was made by referring to leads that bear the same name and a date. More important, however, is the city in which a window lead was manufactured. For example, window leads bearing the inscription John Mason of Bristol suggest a direct trading relationship between the occupants of a site and artisans or merchants in Bristol, England. Similar window leads appearing on sites elsewhere in the region, or anywhere in the world, point to common trading links among distant people. The immediacy of these relationships is far more apparent when represented by an individual's name on two window leads from two sites than by identical assemblages of ceramics. This immediacy is not replicated by any other commonly recovered artifact from early colonial sites. Clay tobacco pipes with maker's marks were shipped in large quantities and probably were marketed by several levels of brokers and merchants. Colonists, on the other hand, quite possibly ordered casement windows directly from the glazier.

Marked leads provide us with a perspective on the colonization of Anne Arundel County, and the Chesapeake Bay region as a whole; not simply in terms of when the area was settled, but in terms of the relationships among colonists and between them and the merchants and tradesmen of England. Window leads recovered from Colonial period sites in Anne Arundel County are described below, along with some preliminary interpretations of those finds.

The Providence Sites

In 1649, a small group of Puritans settled the mouth of the Severn River on the Chesapeake Bay shore of what is now Anne Arundel County. They called their dispersed hamlet-like settlement of 300-500 individuals "Providence." Six of the house sites have been discovered, and three have been investigated to a limited degree (Luckenbach et al. 1992, 1994; Luckenbach 1995). A fourth, Burle's Town Land, is the focus of a large-scale, long-term study undertaken by the Anne Arundel County Archaeological Program.

Burle's Town Land (18AN826)

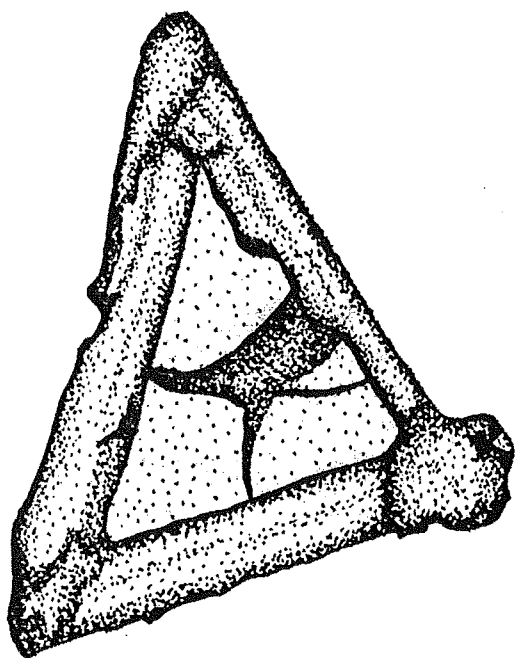
Three seasons of excavation have yielded evidence of at least two structures as well as thousands of fragments of white ball clay tobacco pipes, locally-made terra cotta tobacco pipes, bottle glass, European flint, and European ceramics. Among the ceramic types present are North Devonshire plain and sgraffito earthenwares, North Italian slipwares, Rhenish brown stonewares, Rhenish blue and gray stonewares, and tin-glazed earthenwares of undetermined origin. Archi-

tectural debris includes "Dutch" yellow brick, Dutch yellow and green glazed tiles, Dutch pantiles, and a large number of window comes, three of which bear inscriptions.

One of the comes is embossed with the letters,
-SON of BRIS-

This can be readily attributed to the glazier John Mason of Bristol, England. Identical examples have been recovered from Curle's Plantation on the James River in Henrico County, Virginia (L. Daniel Mouer, personal communication, 1994). The only known date for Mason's comes is 1647, based on the several pieces recovered by Mouer and the Virginia Commonwealth University Archaeological Research Center.

The John Mason window lead from Burle's Town Land provides several levels of evidence about Robert Burle and the Providence plantations. First, of course, at least one of Burle's structures had leaded-glass windows (see Figure 2) rather than oiled paper or wooden lattice work. Coupled with abundant evidence of lead-glazed floor tiles, clay roofing tiles, and brick, the window leads suggest a substantial house by local



0 INCHES 1

FIGURE 2. Leaded window section from Burle's Town Land.

standards. The probable 1647 date accords well with the 1649 date at which the Providence plantations were settled. The window leads from a Bristol glazier also are consistent with non-architectural elements of the site assemblage that were made in the West Country of England and exported through one of the country's principal 17th century ports, Bristol. These include Bristol-made tobacco pipes and the many plain and sgraffito ceramic vessels that were made in the nearby Barnstaple-Biddeford area of North Devonshire. No doubt similar pipes and ceramics have been recovered from Curle's Plantation, but window leads from distant sites bearing the name of the same individual are direct, dramatic evidence of the intimate trade contacts spanning the Atlantic Ocean. Thomas Harris, master of Curle's Plantation, and Robert Burle may not have known one another, but they traded directly, or through intermediaries, with the same people in the British Isles.

Two other embossed comes were recovered from Burle's Town Land, both of which bear the same maker's mark. The more complete of the two reads:

-III RICHARD HOLLAND 16-

The Historic St. Mary's City Commission has recovered identical examples from the St. John's and Country's House sites. Unfortunately, those pieces also lack the last two digits of the date. Again, these finds suggest common sources of manufactured goods, if not common trading partners. This connection is all the more important when we consider that both the Country's House and St. John's are located in what was the heart of Catholic and Proprietary controlled Maryland. Burle, on the other hand, was one of a number of non-conformists seeking independence from the prevailing Anglican Church and the colonial governments of Virginia and Maryland. Regardless of professed faith or politics, all of these people were engaged in the tobacco trade, often receiving imported goods through the same merchants and ship captains.

Town Neck (18AN944)

A second Providence site that has produced dated window leads is the Town Neck site (18AN944). Archival evidence and artifacts recovered during a limited salvage excavation suggest an initial construction and occupation date of 1650. Documentary evidence clearly indicates that Ralph Williams built a second structure when he purchased the land in 1661 (Beauregard et al. 1994). Only three embossed window leads were recovered from the Town Neck site. The three inscriptions are identical:

-III FRANCES GOOD 1661 III-

Window leads bearing the name of Frances Good have been found in Virginia and Maryland. A large number, bearing the same 1661 date, were recovered from Jamestown Island in Virginia, and a single example of that date was recovered from the Bennett Farm site in York County, Virginia. Fragments with the date 1673 also have been recovered from the Country's House, St. John's, and the van Swearingen sites in St. Mary's City, Maryland (Hanna et al. 1992).

The Swan Cove Site (18AN934)

Window leads also were recovered from a third Providence site, called Swan Cove. So far, however, none of those excavated at this site bear inscriptions.

Other Anne Arundel Sites

Middle Plantation (18AN46)

Middle Plantation, situated on the upper reaches of the South River, was patented by Maren Duvall in 1664. William Doepkens, an avocational archeologist, excavated the site between 1968 and 1980 (Doepkens 1991). He uncovered several structures, a cemetery, and thousands of artifacts dating from the late 17th through the middle of the 18th century. Among those artifacts are a large number of window leads, including eight that are marked.

One marked lead bears the inscription:

III SB 1667 SB III-

Neither the maker nor place of manufacture is known for this type. Similar pieces have been recovered from the St. John's and van Swearingen sites in St. Mary's City. John Lewger, Secretary of the Maryland colony, built St. John's in the 1630s. Charles Calvert, the governor of Maryland, acquired and occupied St. John's in 1667. The St. John's window lead suggests that the house was renovated prior to Calvert moving into it. Van Swearingen's was built as a public records office in 1665, ten years before ordinary keeper Garret van Swearingen purchased the site. The 1667 window lead suggests that the building was not completed until two years later.

The 1667 window lead from Middle Plantation is also two to three years later than the presumed initial construction date of the house. Again, this window lead suggests that the building was not completed until after the traditional date, derived from the land patent. Seven other window leads from Middle Plantation are

marked:

-III * W * S * 1686 * S * S III-

Similar examples are unknown and their place of manufacture has not been determined. Nearly twenty years later than the 1667 window lead, these came suggest that at least one window was replaced. Whether or not this event was part of an extensive renovation of the principal dwelling at Middle Plantation cannot be determined with the available data.

Scornton (18AN43)

Several episodes of window replacement, if not renovation, also are evident at Scornton. Situated on a bank of the South River, this site was occupied sometime in the last quarter of the 17th century. A local collector found a large number of window leads along an eroding shoreline in the 1970s. Nine are marked, but none of these can be definitively associated with other came finds in the region. They include:

-III II W • M • 1676 • ROGER • -	[2]
-III R(?) I V(?) I * 16 I 86 I * III-	[3]
-III W • M • 16-	[1]
-III E • W • 1701 • -	[1]
-III * I W I * 16 81 * I W * F(?) -	[1]
-III * W * -	[1]

An example of a section of William(?) Roger's came can be seen in Figure 3.



0 INCHES 1

FIGURE 3. Segment of W.M. Roger 1676 came from Scornton.

The Calvert House Site (18AP28)

The Calvert House is located in downtown Annapolis, Maryland. It was built in the 18th century and recently was renovated for use as a hotel. Excavations at the site by Historic Annapolis, Inc. (Yentsch 1994) yielded three marked leads:

-F M • 1720 •-
 -1725-
 -172-

Summary and Conclusion

Each marked lead points to a construction date in the 1720s. That does not correspond to any known building activity. Yentsch (1994:39) notes that the value of the Calvert House lot rose from 30 to over 400 pounds between 1718 and 1727. She suggests that this increase was due to local economic developments as well as property improvements. The dated window leads suggest extensive renovation, if not new construction, in the 1720s. Property improvements, rather than inflation, best account for the increased value of the Calvert House lot.

Harwood - Carr's Wharf (18AN952)

Excavations by ACS Consultants (Ballweber 1995) at a mid-18th century house site have produced two marked comes, both with the inscription:

-III G D '1 7 4 5' III-

On both examples the 1745 has been improperly cut in the die and the digits are reversed as if viewed with a mirror (see Figure 4). The reversal suggests that the glazier attempted to "update" his milling machine, a fact which may have importance in interpreting the function of such dates. The 1745 date on the Harwood comes represents the second youngest marked come reported from this side of the Atlantic (Hanna et al. 1992). It fits well with the construction date of circa 1750, which was derived from ceramic sherd analyses.

Twenty-eight marked window leads have been recovered from colonial sites in Anne Arundel County. They date as early as 1647 and as late as 1745 and thus span the first century of European settlement in the region. Four glaziers and one city are known by name. Additional excavations in the county, and throughout the region, will undoubtedly produce more marked window leads and shed further light on those already recovered.

Marked window leads are by no means common on early colonial sites. Given the possibility, even the likelihood, of periodic window repair and replacement, we cannot rely on window leads to accurately date a building. When dated comes fit well with other chronological information, however, they are likely to provide greater precision in dating a structure. For example, the dated comes recovered from Burle's (1647), Town Neck (1661), and Harwood (1745) appear to correlate with actual construction dates, while those from Middle Plantation (1667) and the Calvert House (1720) may also represent construction or renovation events.

Of perhaps greater importance than dating is the potential for using marked window leads to reconstruct colonial relationships. Frances Good in London and John Mason of Bristol made casement windows. Those windows were purchased by Protestants on the James River in Virginia and the South River in Anne Arundel County, and by Catholics in St. Mary's City. Did the colonists purchase windows directly from the glaziers, or did merchants maintain long-term relations with individual glaziers and other manufacturers? Did

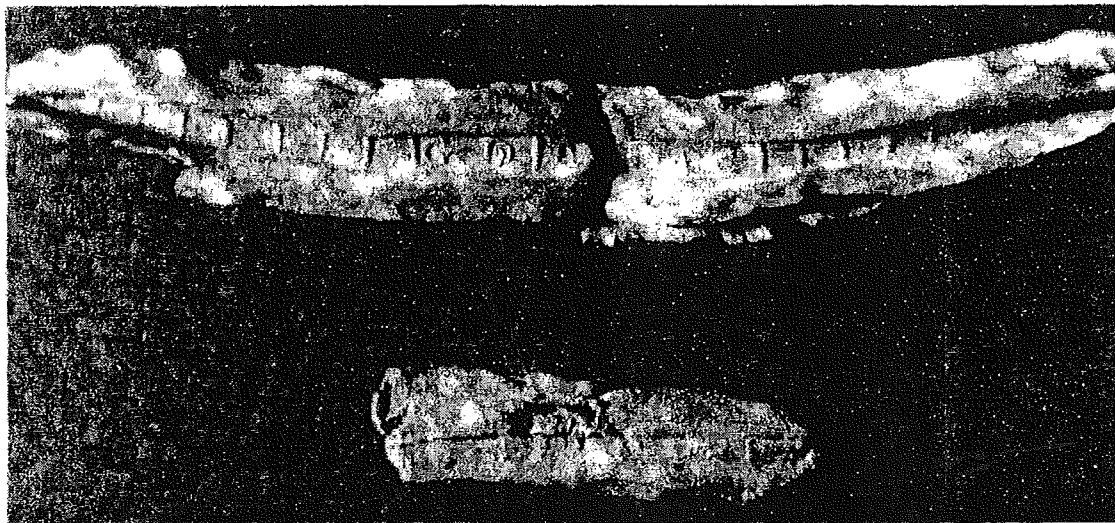


FIGURE 4. GD 1745 comes from Harwood (note date reversal).

the Protestant settler of modest means in Anne Arundel County have the same long-term relationship with a specific merchant as the most prominent persons in the colonies of Maryland and Virginia? Could some window leads be traced to glaziers in other countries? The answer to these, and other, questions should be pursued as more dated window leads from around the world are recovered and reported.

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Al Luckenbach
Anne Arundel County Archaeologist
2664 Riva Road
Annapolis, MD 21401

James G. Gibb
P.O. Box 378
North Beach, MD 20714