



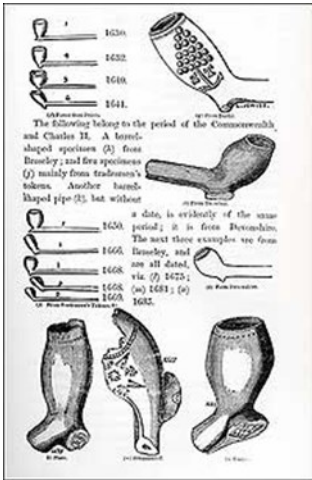
# Carlyle House DOCENT DISPATCH

May 2014

Northern Virginia Regional Park Authority 

## Clay Pipes and Their Use in Archaeology

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Clay pipes. We have a few in the Carlyle House collection, we sell them in our gift shop, and they're on display throughout the house. In fact they can be found at just about any historic colonial site and are a quintessential product of their time. But why are they so important, not just to Carlyle House, but to colonial archaeology as a whole? As with so many topics in colonial history it starts with the tobacco

trade.

Tobacco was the economic lifeblood of the South, and especially Virginia. Tobacco cultivation fueled the colonies and it was traded across the globe. But not all tobacco was shipped overseas. It was also consumed in the colonies and unless it was rolled into a cigar or taken as a snuff powder pipes were needed to smoke it. Although pipes were made of many different types of materials, clay was the most common thanks to its abundance and ease of manipulation. Unfortunately for the colonists (and fortunately for archaeologists) the nature of the clay pipes meant that they were incredibly fragile and were broken nearly as quickly as they were produced. In fact their fragments are strewn across every colonial site and are considered by many archaeologists to be the equivalent of cigarette butts today. Dropping a clay pipe meant its stem was likely to break into as many as twenty pieces (depending on the pipe's style) making their fragments ubiquitous at archaeological sites. But what do those pipe fragments tell archaeologists about colonial life beyond the obvious? Well, it turns out they can determine quite a lot from even the tiniest of pieces. Even as far back as the 1860s historians were studying the evolution of a clay pipe's

bowl shape and size (see photo), particularly those found in the British Isles. Tobacco pipes like those seen in the colonies were introduced by Native Americans to the first European settlers at Roanoke Island in North Carolina and their use had spread to England by the 1580s. Over time the shape of the pipes, and in particular their stems, began to change. Using a "relative dating" technique called stratigraphy archaeologists began to piece together a chronology of clay pipes. Stratigraphy is based on the principal of superposition—objects found lower in the ground are believed (unless proven otherwise) to be older than objects found higher. Obvious though this technique may sound, it can be very useful in determining a baseline chronology for a series of objects or sites. Other "absolute dating" techniques, such as radiocarbon and potassium argon dating, may be used where appropriate in conjunction with stratigraphy to establish a firmer timeline if necessary. These techniques involve significant lab work, cost, and either carbon-based (organic) or volcanic materials to use, however, and are not always possible or unequivocally correct.

With clay pipes, stratigraphy was combined with stylistic changes to the pipes' stem length, diameter, bowl shape and size to establish a chronology still used today to help determine date ranges for colonial sites. Such work has been crucial to the dating of sites such as Jamestown and Williamsburg. There archaeologists measured

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bore holes in the pipes as well, and determined that those with larger holes were from earlier periods, while shorter pipes and those with more narrow holes were more recent. Today there is even a formula



archaeologists can use to narrow dates based on the bore holes in colonial clay pipes.

Although they may be small, the impact clay pipes has had on colonial archaeology has been long-lasting. For more information on clay pipe dating and archaeology visit the National Park Service and Colonial Williamsburg websites.

National Park Service: [http://www.nps.gov/archeology/afori/howfig\\_mar4.htm](http://www.nps.gov/archeology/afori/howfig_mar4.htm)

Colonial Williamsburg: <http://www.history.org/Foundation/journal/winter03-04/pipes.cfm>