

# Behind the Scenes

## Introduction

This document provides an overview of the events and evidence leading to the discovery, identification, and determination of the cause of death for the young man discovered in the cellar at a site called Leavy Neck. Although this is an authentic recounting of the case, some technical information has been excluded for the sake of brevity. Unlike the Webcomic, this summary uses the actual names of people involved. The Webcomic characters are based on some of these individuals; only the characters are fictionalized.

## Discovery of the Site

In 1991, archaeologist Dr. Al Luckenbach and his assistant, Esther Doyle Read, were invited by the owners of a sod farm to inspect one of the fields for artifacts. They walked over a recently plowed field adjacent to a silt-filled, tidewater creek of the Chesapeake Bay. The site was within the area known as Providence, the earliest European settlement in Anne Arundel County Maryland (1649). The two archaeologists were looking for remains from the lost dwellings and constructions associated with the settlement. As they walked over the area, they picked up wrought nails, fragments of stoneware, and clay tobacco pipes.

Dr. Luckenbach returned to the site in 1999 with an archaeology team from the Lost Towns Project in Anne Arundel County. The group used ground-penetrating radar and a magnetometer to reveal subsurface disturbances. They also made shovel test pits to select the best area for intensive excavation, which began in the spring of 2003. The team included more than two dozen volunteers, several interns, and staff from the Lost Towns Project.

## Who Lived and Died on the Site?

The site is located on a tract of land that was surveyed (which determined boundaries) for William Fuller in 1659. Fuller had served as a Maryland parliamentary commissioner under Richard Bennett during Parliamentary rule in England. As an army Captain, he commanded the Puritan force in the Battle of the Severn (1655). This battle was the only action of the English Civil War on American soil. The battle involved the Puritan, or Protestant, settlers of Providence on one side and a larger group of Catholics from St. Mary's City on the other side. The Catholics were defeated and four Catholic prisoners of war were executed, possibly under an order given by Captain Fuller.

Fuller sold the property to Quaker brothers Hugh and Emmanuel Drue in 1662. Emmanuel set up a tobacco pipe kiln and began making pipes on the property. Hugh died this same year and Emmanuel subdivided the property, selling a 120 acre portion, which he called Leavy Neck, to William Neale. Neale was a planter, and most likely of English origin. Neale lived on the small plantation with his wife Suzannah, two daughters Suzanne and Providence, son Jonathan, and two unnamed indentured

servants. Neale died in 1677; however, his plantation was passed down through the family in the following decades.

## Dwelling Remains and a Date

The 2003 excavation revealed a circular soil stain in the first quadrant, known as Feature One. The archeologists recognized the soil characteristics as markers of the remains of a house cellar. Feature One was only 12-ft square. The small feature would have been located under the floorboards of a simple domestic dwelling. A common way of discarding household trash was to dump it into a cellar hole dug below the floorboards. The soil in Feature One was rich in ash (from a fireplace or hearth in the dwelling) and various types of trash.



**Figure 1. Isle of Wight Coin**  
1664 Depiction of a ship (left)  
New Port Isle of Wight 1664  
(right)

Many artifacts dating from 1655 to 1680 were uncovered, including a 1664 coin minted in the Isle of Wight, a piece of window lead stamped with a maker's mark and the date 1663, North Devon wares (pottery), lead-back tin glazed plates, tobacco pipe fragments, white metal buttons, and oyster and animal bone remains.

The window lead was dated and stamped at the time it was forged, which would closely correspond to when the house was constructed. Together with the 1664 coin, the window lead date means there was no house, cellar, or body earlier than 1663. This date is the *terminus post quem* for the grave, the earliest year the person could have been buried.



**Figure 2. Window lead stamped MASHAM 1663. (Source: Smithsonian Institution)**

## The Body is Discovered

On August 19, 2003, a Lost Towns Project staff member, Erin Cullen, uncovered the top, or crown, of a human skull with one stroke of the trowel. This was the first time any member of the Lost Towns team had discovered any human remains in a trash pit, including more than two dozen similar trash pits dating from the 1660s through the 18th and 19th centuries.

As the body was uncovered, it became clear it was intentionally stuffed into the cellar pit. One artifact stood out prominently in association with the body, the bottom of a broken North Devon milk pan, which sat squarely on the ribcage.



**Figure 3. Pieces of milk pan from the site that have been rearticulated. (Source: Smithsonian Institution)**

The pit in the cellar-turned-grave was too small for the body to rest in a laid out position. The excavation showed the body was pressed into the irregular, too-small, shallow trench with enough force to displace one kneecap and curl the toes under, as they were pressed hard against the cellar wall. The person burying the body may have seen the broken milk pan sitting in the trash just a foot away from the body, picked up a broken half, and

used it to compress the torso into the grave. The large piece of pottery may also have served as a make-shift shovel during the hasty attempt to dispose of the body. Setting the piece of milk pan on the body could have served two purposes - to dispose of evidence related to creating the clandestine burial and to shove the corpse into the small space. Once positioned, the body and piece of milk pan were covered with a thin layer of clay, possibly to hold down the smell. In time, the body became covered with trash through normal use of the cellar. Knowingly, or perhaps unknowingly for some, people in the house kept the pit in use after the burial and until the cellar filled with trash.



**Figure 4. Skeleton in the cellar in situ (Source: Smithsonian Institution)**

A typical 17th century burial in this region would be in an evenly dug grave, outdoors, often in a public graveyard. Bodies buried formally were typically not in ordinary clothing, but wrapped in shrouds - simple burial clothes - or placed in wooden coffins. No buttons or personal artifacts were found with the body, but the deceased was likely buried in work clothes held together by rope or other organic fasteners. Textiles will disintegrate without a trace when given enough time, buried in the damp, low-lying, clayey soils. Evidence from the burial alone - minimal grave preparation and very private burial in a highly unusual place - point to foul play.

Over a two-month period, all the soil over the skeleton was carefully removed and screened leaving the underlying soil supporting the bones. The excavation team invited Dr. Doug Owsley, a Smithsonian forensic anthropologist, and his colleagues to the site to document the body *in situ* and to advise on removing it from the pit. The remaining soil supporting the skeleton was removed and the bones carefully collected. They were taken to the Arundel County Archaeology Lab in Annapolis, Maryland. After cleaning and documenting, the remains were transferred to Dr. Owsley at the Smithsonian's National Museum of Natural History.

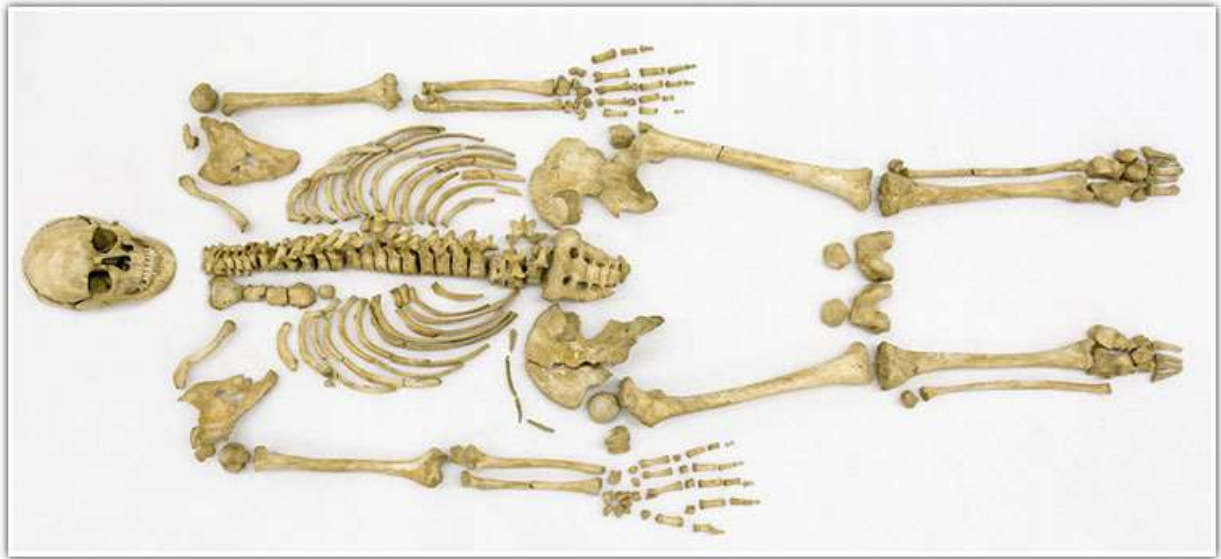


Figure 5. Skeleton in the cellar arranged in anatomical position. (Source: Smithsonian Institution)

## The Forensic Evidence: a Wretched Life and Violent Death

Dr. Owsley's team examined the remains for forensic evidence and found a number of telling conditions on the bones. The skeleton was examined to identify the individual (i.e., determine age, sex, ancestry) and compare the information to what was known about any people associated with the property around the time of death. Forensic analysis collected information on the health of the person, his/her activities during life, and the cause of death.

The body matched the developmental growth pattern of a male, about 16 years old, of European descent. The union of growth plates on the long bones, permanent tooth eruption, and the shape of the pelvis and skull were clues to this identification.



Figure 6. Proximal humerus of the skeleton in the cellar. (Source: Smithsonian Institution)

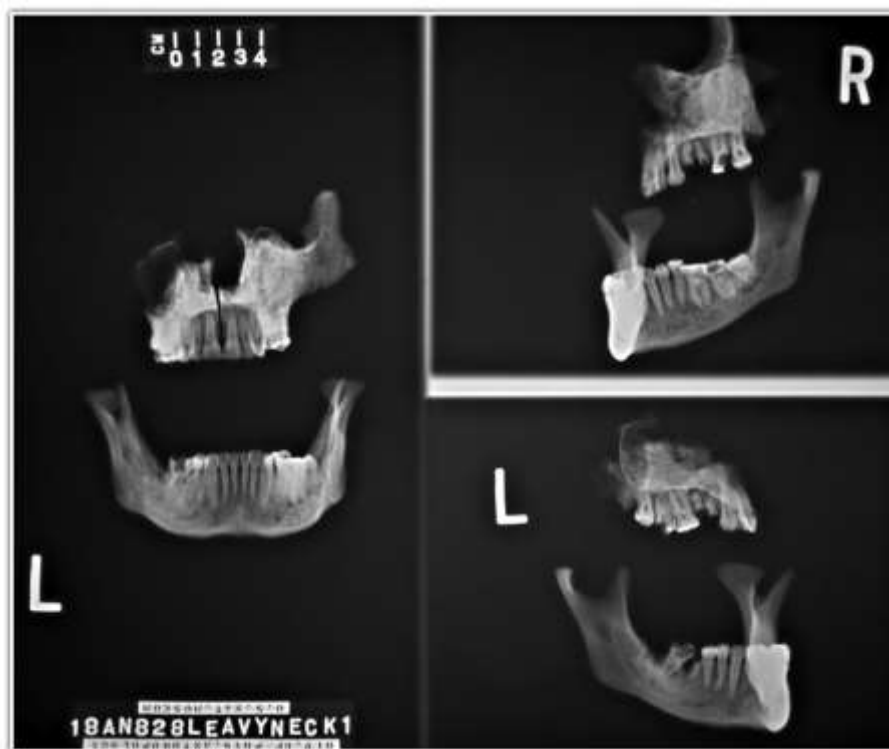


Figure 7. Upper (maxillae) and lower (mandible) jaws of the skeleton in the cellar. (Source: Smithsonian Institution)



**Figure 8. Pelvic bone of the skeleton in the cellar. (Source: Smithsonian Institution)**



**Figure 9. Skull of the skeleton in the cellar. (Source: Smithsonian Institution)**

A further analysis of the isotopic ratios of carbon and nitrogen in the bone was consistent with a diet that included wheat, a European product, as a staple. Lack of isotopic evidence for an American, corn-based diet suggests the boy was a recent immigrant, and not someone born in Maryland or someone who had lived there for very long.

Several bones of the boy's skeleton showed evidence of infection during life. Caries (i.e., cavities) on 19 teeth, plus abscesses on seven, which would have further weakened this young man's immune system.



**Figure 10. Vertebrae from the spine of the skeleton in the cellar showing abnormal porosity and erosion. (Source: Smithsonian Institution)**



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**Figure 11. Upper and lower tooth rows from the skeleton in the cellar. (Source: Smithsonian Institution)**



**Figure 12. Front teeth of the skeleton in the cellar. (Source: Smithsonian Institution)**

Hard, repetitive labor, particularly during adolescent growth, marked the skeleton at muscle attachment sites.



**Figure 13. Humerus and proximal humerus of the skeleton in the cellar. (Source: Smithsonian Institution)**

Heavy loads carried over the shoulders compressed the spine and ruptured discs. A total of eleven vertebrae (eight thoracic and three lumbar) recovered from the skeleton in the cellar had Schmorl's depressions in their proximal and/or inferior endplates.



**Figure 14. Three of the thoracic (upper row) and two of the lumbar (lower row) vertebrae from the spine of the skeleton in the cellar. Both sets show Schmorl's depressions in their proximal and/or inferior endplates. (Source: Smithsonian Institution)**

The most telling pieces of evidence of trauma are broken bones in the right hand and wrist. These injuries are significant not because they would have been fatal, but because they indicate events that occurred at the end of the boy's life.



**Figure 15. Distal view of right radius of the skeleton in the cellar. The styloid process has broken off. Also notice the longitudinal break just below this point. (Source: Smithsonian Institution)**



**Figure 16. Distal view of the right radius of the skeleton in the cellar (view from the other side of the bone). (Source: Smithsonian Institution)**

The hand and wrist fractures did not heal, which indicates trauma around the time of death. The pattern of the fractures is consistent with a forceful blow to the hand held in a defensive position. This type of fracture would not have resulted from stopping one's self during a fall; it more likely resulted from the right hand and wrist being struck with considerable force by a hard object. (See [Evidence of trauma.pdf](#) for more details about this type of injury.)

## Final Conclusions

From the features of this young man's bones - his age and sex, his ancestry and immigrant status, and evidence of a lifetime of hard physical labor and poor health - anthropologists have concluded that the skeletal remains likely belonged to a young indentured servant. The archaeological dating points to the time when William Neale owned the land and the historical records indicate two indentured servants under his charge. The boy in the cellar had not lived in Maryland long before his death and clearly had a hard life prior to coming to the Chesapeake. He may have begun his servitude as early as 12 years old. He may have been an orphan, a street boy, a criminal, or just unluckily born into a disadvantaged English family. Whoever he was, he worked hard, was treated poorly at the time of his death, and was buried secretly and forgotten. It is likely this weakened boy died in an act of manslaughter or even murder - a fate not common, but certainly not unheard of for the indentured servant in the Chesapeake. Either way, his master or someone in the household may have had an interest in concealing his death and one can imagine complicity among the household members living over his remains.



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This page is part of the [Smithsonian's The Secret in the Cellar Webcomic](#), an educational resource from the *Written in Bone* exhibition, February 2009 – 2014.