A Highly Unusual Case

In 2002, archaeologists uncovered an isolated grave just outside the log wall of a fort built on an island in the James River almost four centuries earlier. Who was buried there?

The discovery mystified investigators. Unlike nearly all the other early fort burials they had found, this one once held a coffin. The grave shaft was carefully dug. It lay outside of and parallel to the west palisade, near a gate that opened to what was probably the parade ground. This was not a typical church cemetery burial!

Smithsonian forensic anthropologists joined archaeologists from APVA Preservation Virginia who were excavating the site where the fort once stood—the first permanent English settlement in North America. They recorded data on the skeleton in the field and then removed the bones to the archaeological lab at Jamestown. The clues in this burial and in the bones of its occupant created an astounding forensic file that led to a probable identification. This was one of the very first English colonists!

Evidence at the Scene

A gabled coffin and captain’s staff placed next to it indicate that the colonists who buried this man held him in high regard. Archaeological analysis of artifacts found in a later pit that cut into the upper half of the grave shaft revealed that this burial took place before 1630 and was forgotten by that time.

Skeletal Evidence

Skeletal examination identified the remains as those of a European male, about 5 feet 3 inches tall, and 30 to 36 years old. Though his remains were well preserved, the cause of death was not apparent in the skeleton. The bones show some staining after death, from contact with copper shroud pins and iron coffin nails.
A Probable ID

The weight of all the evidence pointed to one man—Captain Bartholomew Gosnold! Investigators compiled the clues from the bones and burial and then looked at supporting evidence. Historical sources note that four prominent men died during the first years of the Jamestown colony. All were in their early thirties. Each might have been the man in this grave. But firsthand accounts of a captain’s death in 1607 seemed to best fit the grave’s location immediately outside the fort in the “parade ground,” the gabled coffin, and the captain’s staff buried with the coffin.

Captain Bartholomew Gosnold died after a three-week illness, only three months after the colonists landed. Such a quick illness would not have shown up in the skeleton. If it is Gosnold’s body in the grave, that would explain why no cause of death was apparent in the well-preserved remains.

A Captain, No Longer Nameless

Bartholomew Gosnold (1572–1607) was an enthusiastic promoter of colonization. An English lawyer and explorer, he first led an expedition to New England in 1602. He named Cape Cod for the teeming fish he encountered there, and Martha’s Vineyard for his daughter. Gosnold captained the Godspeed, one of three ships that sailed for Virginia in 1606. He was vice admiral of the expedition and helped design the fort at Jamestown.
Forensic Anthropology

What is Forensic Anthropology?

Generally speaking forensic anthropology is the examination of human skeletal remains for law enforcement agencies to determine the identity of unidentified bones.

Further definition of the term is necessary to understand the scope and basis of forensic anthropology. Anthropology alone is the study of man. Anthropologists are interested in culture (cultural anthropologists), language (linguistic anthropologists), the physical remains or artifacts left behind by human occupation (archaeologists), and human remains or bones and teeth (physical anthropologists).

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Over the past century physical anthropologists (those who study human remains) have developed methods to evaluate bones to figure out things about people who lived in the past. These techniques help them to answer questions about the remains they are studying.

The questions that might be looked into include: Was this individual male or female? How old were they when they died? How tall were they? Were the people studied in good or poor general health?

Forensic anthropology involves the application of these same methods to modern cases of unidentified human remains. Through the established methods, a forensic anthropologist can aid law enforcement in establishing a profile on the unidentified remains. The profile includes sex, age, ethnicity, height, length of time since death, and sometimes the evaluation of trauma seen on bones.

In many cases after identity of an individual is made, the forensic anthropologist is called to testify in court regarding the identity of the remains and/or the trauma or wounds present on the remains.

**What do forensic anthropologists do?**

Forensic anthropologists are commonly portrayed in the media as forensic scientists and/or crime scene technicians, but this is not accurate. Forensic anthropologists deal strictly with the human remains. While some people trained in forensic anthropology are also trained in evidence collection techniques, most forensic anthropologists only specialize in techniques related to analysis of the remains or bones only.
Generally, forensic anthropologists DO NOT do any of the following:

- Collect trace evidence (hair, fibers)
- Run DNA tests
- Analyze ballistics or weapon evidence
- Analyze blood spatter
- Conduct autopsies

What a forensic anthropologist DOES do to aid in a case:

- Goes to a crime scene to assist in the collection of human remains
- Cleans up the bones so that they may be looked at
- Analyzes skeletal remains to establish the profile of the individual
- Looks at trauma evident on the bones to establish the pathway of a bullet or the number of stab wounds
- Works with a forensic odontologist (dentist) to match dental records
- Testifies in court about the identity of the individual and/or the injuries that might be evident in the skeleton

What training do forensic anthropologists need?

Current minimum requirements necessary to become a forensic anthropologist include a Bachelor's degree in anthropology or a closely related field, a Master's degree in anthropology, and usually a PhD in physical anthropology.

Additionally, during their education the student must seek out opportunities to gain experience by assisting an established forensic anthropologist with casework.

After the PhD, there is still additional training to complete. Though not a requirement, the American Board of Forensic Anthropology recognizes established forensic anthropologists as diplomates after the required educational requirements are met and the candidate successfully completes written and practical exams.

Where do forensic anthropologists work?

Forensic anthropologists are employed primarily at universities and forensic facilities around the country. Most forensic anthropologists teach and perform research in other areas of anthropology in addition to their casework. Some forensic anthropologists have found jobs in forensic facilities where they work closely with medical examiners or forensic pathologists.
What are examples of cases forensic anthropologists work on?

Here are two case scenarios where the assistance of a forensic anthropologist would be necessary:

Case 1: A hunter is in the woods and comes across what he thinks is a human skull. He marks the area and goes to get police to bring them back to the area. A forensic anthropologist might be called to assist in determining first of all if the remains are in fact human. If the remains are human then the anthropologist can assist law enforcement with the collection of the remains at the scene. Typically the anthropologist would photograph the remains prior to removal and also make a pictorial view or site map of the area so that if need be the scene could be recreated later. During the scene work the anthropologist would work with other crime scene specialists who might be interested in other evidence that could be found at the scene such as weapons, blood, DNA, etc. Forensic anthropologists can then look at the bones to establish a profile of the remains including the age, sex, ethnicity, height, time since death, and trauma. If the police have a missing person in mind, the forensic anthropologist can then work with the medical examiner and forensic odontologist to determine if the identity is a match.

Case 2: A forensic pathologist is presented with partially decomposed remains of an individual and the identity has already been established. However, there is evidence of multiple traumatic injuries (example: gun shot wounds and/or knife wounds) that occurred close to the time of death and the state of the remains prevents the pathologist from being able to fully understand the extent of the trauma to the remains. The forensic anthropologist aids the pathologist by cleaning the bones and looking closely at them to determine the number and type of traumatic episodes. Through their analyses the forensic anthropologist is able to identify multiple types of traumatic injury, potentially an important factor in the trial.
Forensics: Forensic Anthropology

Use the words provided to fill in the blanks about Forensic Anthropology.

humans indicators evaluating law-enforcement
date identity classes gender labs
physical universities testimony undergraduate
bones ethnicity collecting past
anthropologists remains PhD research

Forensic ____________________ analyze human ____________ in an attempt to determine the deceased person’s ____________ or clues about the victim’s _________. Anthropologists, in general, study the history of ___________. Forensic anthropology is a special branch of ______________ anthropology. Forensic anthropologists study ____________ and other _______________ to determine the person’s age, ____________, height and _____________ among other characteristics. This information can assist ________________ personnel in their efforts to solve a case. In some cases, they may be asked to provide expert ________________ in court during a criminal trial.

Forensic anthropologists typically are not involved with ______________ evidence but rather analyzing and ______________ human remains gathered by other individuals.

Most forensic anthropologists have ________________ degrees in anthropology or a related field. Many have a ________ in physical anthropology.

Forensic anthropologists typically work in forensics ______________ or ________________. They often teach anthropology ______________ and conduct ______________ in addition to analyzing human remains.
Forensic Anthropology
“A Highly Unusual Case”

Use the words provided to fill in the blanks about Forensic Anthropology.

Forensic anthropologists were ___________ to investigate a mysterious ___________ found close to the historic ___________ settlement in ___________. The gravesite was unusual because the ___________ individual had been buried inside a ___________ and outside the ___________ of the fort.

After ___________ the skeleton, scientists were able to determine it belonged to a man between 30 and 36 ___________ of age but they were unable to ___________ the cause of death.

After examining further evidence, ___________ determined the skeleton belonged to Captain ___________ Gosnold who had died in 1607 after a three-week ___________. Captain Gosnold died less than 3 months after ___________ at Jamestown.

The Captain named Martha’s Vineyard after his ___________ and Cape Cod because of the ________ that were frequently found there. He had commanded a boat called the ___________ that set sail for the new world in 1606.