

The Body Farm

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The Body Farm, a strange and eerie term you may have heard in a book or on a television show, meaning exactly what it sounds like: an outdoor research facility where bodies are strategically placed in the sun, in the shade, in ponds and in trunks and examined to see the effects of time and certain elements. Why do we have several body farms in the United States and what purpose do they serve? One day the students and staff of body farms across the U.S. hope to aid law enforcement in catching criminals by making an atlas of what happens to the human body after death. By developing this atlas equipped with pictures, copious amounts of time will be saved by law enforcement, time that would otherwise be wasted on trying to develop a time of death.

The education a body farm can provide for aspiring forensic anthropology students is endless. Many teachers have tried to simulate crime scenes in classrooms, and while they do work and give students a broader spectrum of inquiries, to have an actual body to study over time is the ultimate gift.

Body Farms in the U.S

Dr. William M. Bass' inspiration for starting the body farm stemmed from a possible murder case presented to him by local police where they asked him to approximate time of death of a body whose resting place was disturbed when a couple decided to remodel their home. Judging by the bit of pink flesh left on the arm of the corpse, Bass believed the time of death had to have been no longer than a year, he was off by 112 years. The body actually belonged to Civil War hero Colonel William M. Shy who was embalmed in arsenic and buried in a cast iron coffin that preserved his body. It was at that moment Bass decided people needed to know more about

what elements, scavengers, and insects do to the process of decomposition (Armstrong, 2007).

Figure 1 shows William Bass examining a corpse on The Body Farm.



Figure 1: William Bass with co-author Jon Jefferson on The Body Farm.

The University of Tennessee’s Forensic Anthropology Research Facility, nicknamed “The Body Farm” in the 1980’s by Knoxville police, was the first of its kind to emerge on the scene (Newsweek, 2000). There’s speculation as to how they’re trying to expand, but currently it sits on 1.3 acres just behind the University’s medical center. At any given time this plot of land holds upwards of 50 bodies. All bodies are either unclaimed remains from the medical center or donated by families of the deceased (Forensic Anthropology Center, 2011). Since its inception in 1971, four others body farms have emerged in the U.S.

In 2006 Western Carolina University opened its own “body farm.” A much smaller plot of land, housing only up to six bodies at a time, where students are able to log how the body decomposes over time. This facility is also used by law enforcement to train cadaver dogs.

A third body farm, called FARF (Forensic Anthropology Research Facility), is that of Texas State University opened in 2008 (Department of Anthropology, 2011). This massive 26 acre outdoor research facility at Freeman Ranch is the largest facility of its kind. Donated bodies are used to gain knowledge of time since death, postmortem interval and decomposition processes specializing in climates of dry Western states, as well as vulture activity. After the bodies are removed from the FARF the skeletons are permanently placed in the Texas State Donated Skeletal Collection where they will be utilized for research and education.

The fourth body farm, also known as STAFS (Southeast Texas Applied Forensic Science Facility) opened in 2009. This nine-acre facility belongs to Sam Houston State University in Huntsville, Texas (Sam Houston State University, 2009). STAFS includes a fenced off one acre maximum security research facility surrounded by eight more acres of minimum security land adjacent to the Sam Houston National Forest.

A fifth body farm hails from California University of Pennsylvania and was set to open in 2011, but has not yet been completed. John O'Laughlin, a local farmer, has donated a generous portion of his 222-acre land to help students learn more from the decomposition on human remains (Raymunt, 2010). This forensic anthropology research facility will be the first of its kind in the Northeast. The climatic conditions, different than those of other states with body farms, will affect human remains in different ways and will give more insight into the life of the body after death.

Who Benefits from Body Farms

As forensic anthropology students look into human decomposition first hand, they're not the only ones gaining something from the efforts put into body farms. Forensic entomologists

can observe insects' behaviors and eating habits on a corpse at a body farm. Information pertaining to time of death can be gathered from maggots and other insects. For example, once a blowfly hatches on a decomposing body, it takes approximately one week of continuous eating to reach 15 mm in length (Geographic, 2009). From this we know about how long a human body has been lying in state.

Some body farms have worked closely with law enforcement to “remodel” crime scenes in hopes of getting all the aspects as close to the crime scene as possible, thus bringing them closer to finding out exactly what happened to a body after death. If everything goes as planned criminals can be caught in a timely manner.

If a body is experiencing skin slippage, the forensic anthropologist can intervene and soak the skin from the hand in warm water, then place it over their gloved hand and perform fingerprinting to help with identifying the victim. This would help in cases where the skull may not be found and dental records are of no help. Figure 2 shows what skin slippage looks like on the hand on a deceased person.



Figure 2: Cadaver hand exhibiting skin slippage.

Chemists and geologists can study soil to see if certain compounds are present. By having this knowledge, one can determine the race of the person that lay in that soil based off the amount of melanin skin pigment (Bellows, 2007). This information can and has helped law enforcement solve murder cases. Body farms are not only helping the U.S. solve cases that would otherwise take a long time or be closed all together, but other countries who haven't the funds or knowhow to open their own body farms.

From Donation to Education

It came as a bit of a surprise to me when I found out that over 650 people have donated their bodies to the University of Tennessee's body farm alone, and that well over 1300 more people have chosen to be part of the pre-donor program where, upon death, their body will be used for research purposes at the facility (Forensic Anthropology Center, 2011). Some donors are scientists who believe that all aspects of education are important and the research performed at body farms is benefiting more people than ever imagined. Some donors wish to be as charitable in death as they are in life.

Once a body is received at the University of Tennessee's body farm it's given a number and placed strategically on the land to be observed for any length of time. Once the skeleton is all that remains, the bones are placed in the William M. Bass Forensic Skeletal Collection where they may be examined by students for years to come (Forensic Anthropology Center, 2011).

Conclusion

Since the inception of body farms, ground-breaking advances have been made in the fields of science and law enforcement. By studying the rates of decomposition in variable environments, including humid, arid, water-submerged, and so on, scientists aid in not only law enforcement, but funerary studies as well. Body farms are an ideal method to assist in the teaching of students the processes that a body undergoes during decomposition and death in general, although gruesome in some respects. Forensics and law enforcement tactics begin with the education and proper application of the science developed and observed in the operation of body farms.

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