Not As-Seen-On-TV Forensic Anthropology

Anthropology in the Public Sector
Jennifer Byrnes
April 6, 2018

The smell of jet fuel was overwhelming, the air was frigid, and my adrenalin was pumping, making it difficult to breathe. Continental Flight 3407 had crashed less than 48 hours beforehand in a suburb of Buffalo, and I, along with a few other graduate students from the University at Buffalo, volunteered to help the Medical Examiner’s (ME) Office to recover human remains. No recovery was conducted the previous day because the plane crashed into a house, rupturing and igniting a gas line. The resulting inferno had cremated some of the remains. In gross anatomy class, I had encountered death in a controlled and planned environment. This was different; this was burnt, mangled, and tragic. We received instructions on recovery protocols, and we put on our Tyvek suits, gloves, and masks. The scene was surreal, like something out of a movie. But the work was very different. This was real life.

Pop culture and media portrayals romanticize forensic anthropology, leaving many prospective forensic anthropology students unprepared for the breadth of knowledge and the depth of training that the field demands. On TV shows like Bones, an elite team of congenial and attractive scientists with high-tech gizmos solve crimes in under an hour. The actual work of forensic anthropologists, not to mention the training itself, requires considerably more time, and a nuanced, thoughtful approach.
Jenny Byrnes pumping water out of graves from the Erie County Poorhouse cemetery in Buffalo, NY. David Ingleman, UB Archaeological Survey.

Forensic anthropologists, like other practitioners of anthropology, approach their field of study holistically, drawing from a diversity of disciplines to understand complex problems. Guided by an anthropological perspective, forensic anthropologists are aware of the multitude of cultural meanings of death. Archaeological field and analytical methods are also broadly applicable to forensic investigation. Forensic anthropology students receive additional cross-training in the natural sciences, including chemistry, physics, and biology, especially human anatomy and osteology. Would-be forensic anthropology students should be prepared for several years of graduate classes, internships, and apprenticeships.

Furthermore, while Hollywood portrayals of gore provide a reasonable visual approximation, the visceral experience of smelling and touching death in real life cannot be replicated. Even new forensic anthropology and osteology students are typically only exposed to clean, dry bones. They are sometimes unprepared for their first olfactory encounter with advanced decomposition. Cleaning is a necessary step in order to have an unobscured view of the bone surfaces for detailed analyses and to eliminate the odor of decomposition. I find that it’s my best students who volunteer for this unpleasant and time-consuming task to gain professional experience. To prepare them for this inevitably jarring first prolonged encounter with decomposition, I explain what they will see, smell, and touch beforehand. I also coach students to be aware of their limitations, and explain that it is common to feel faint when first exposed to decomposed remains. Forensic anthropology can be
mentally, physically, and emotionally taxing, and it is important to take breaks in order to maintain personal safety.

Unlike the characters on *Bones*, most real-life forensic anthropologists do not work fulltime on casework. Contrary to popular belief, ME offices typically don’t have the financial resources or caseloads to justify employing forensic anthropologists fulltime. Instead, local agencies consult with forensic anthropologists who are employed as professors at universities. As an assistant professor at the University of Hawai‘i–West O‘ahu (UHWO), I consult for multiple local municipalities such as the City and County of Honolulu Department of the Medical Examiner. UHWO is a teaching institution, I have a professor’s work life. I teach three classes per semester, conduct and publish research, and perform campus and community service. Additionally, I perform forensic analyses on an as-needed basis for the local ME and law enforcement. This involves phone calls at odd hours, consulting via email, lab work, and sometimes mobilizing quickly if a scene needs to be recovered. I enjoy the problem-solving parts of casework and fieldwork, especially finding the best solution or techniques to use in diverse scenarios.

There are a number of non-university employment options for forensic anthropologists. The Department of Defense's Defense POW/MIA Accounting Agency (DPAA) is one of the largest employers of forensic anthropologists. Their main laboratory is located in Hawai‘i, at the Joint Base Pearl Harbor-Hickam. Most people who work at the DPAA have at least a Master’s degree, but a PhD is preferred. There are other jobs available for those who pair their forensic anthropology training
with degrees such as justice administration. Programs like the one I run at UHWO (Certificate in Applied Forensic Anthropology) are especially advantageous for students who want to pursue careers as a crime scene technician, medicolegal (or death) investigator, detective, or archaeologist.

The version of death portrayed in pop culture and in the media is not the death forensic anthropologists deal with. This career requires us to have direct contact with death in a real, visceral, emotional way. Some of the students I worked with at the plane crash learned that they did not want to work in a field involving death. It is morbid, unpleasant, and personally demanding. But someone has to do this work, and on that cold day many years ago, the ME needed the skillset of an anthropologist to successfully recover the deceased. They needed my skills.

Over the years, I learned to remain composed as I make my professional contribution in these challenging situations. I discovered how to move past visceral reactions and approach each case with the upmost respect and dignity owed to the deceased. Forensic anthropologists help those who have lost their voice in death, to tell their story. Mortui vivos docent. The dead teach the living.

Jennifer Byrnes completed her doctorate in physical anthropology at the University at Buffalo, and joined UHWO as assistant professor of forensic anthropology in 2014. She is the faculty advisor for the Certificate in Applied Forensic Anthropology. Her research interests include disability and bioarchaeology, paleopathology, trauma, and skeletal biology.

Gemmae Fix and Megan McCullough are contributing editors for Anthropology in the Public Sector. The views expressed in this article are those
Measuring mandibles from the Khon Kaen University donated skeletal collection in Thailand. Rebecca Taylor.

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Cite as: Byrnes, Jennifer. 2018. “Not As-Seen-On-TV Forensic Anthropology.” Anthropology News website, April 6, 2018. DOI: 10.1111/AN.820

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