



### A98 Forensic Anthropology and Identification in Natural Disaster-Related Cemetery Disruptions

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**Learning Overview:** The goal of this presentation is to discuss the efforts undertaken to recover and identify 119 individuals displaced from their graves during a natural disaster.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by providing baseline information useful for recovering remains and resolving the identity of individuals displaced from cemeteries during natural disasters.

In the aftermath of natural disasters, state or national response prioritizes the living and recently deceased. Regarding the latter, forensic anthropologists often are part of a team that involves individuals from other forensic and medicolegal disciplines, and their roles range from participating with recovery to assisting in the identification process. In these cases, identification is based on typical methods used for recently deceased individuals, such as visual recognition, dental or medical records, or DNA.

When natural disasters impact the non-recently deceased (i.e., cemetery remains), identification of these individuals requires a different approach. Not only might those responsible for reintering disinterred remains have little experience with identification protocols, but also the typical methods for establishing identification are often ineffective due to the condition of the remains. In these instances, forensic anthropologists are an invaluable resource during the recovery and identification process.

Numerous natural disasters have impacted the United States over the past 15 years. In Louisiana, the most recent event was the “Great Flood” of August 2016, in which an unnamed storm dropped 19–31 inches of rain over south Louisiana within 48 hours. When the deluge stopped, an area extending more than 13,129 square miles was flooded. Local coroners were able to manage the 13 deaths that occurred during the storm; however, officials soon realized that the widespread destruction to cemeteries would require additional assistance. In total, 74 cemeteries in 19 parishes had been affected, with at least 801 graves damaged or compromised. This presentation discusses the efforts undertaken to resolve the identity of individuals displaced in the cemetery with the most damage.

Plainview Cemetery, in Livingston Parish, LA, is privately owned by a church, but had served as a burial ground for the broader community for more than 100 years. Of the 808 visible graves present prior to the flood, 250 were disrupted, with damage ranging from headstone displacement to the ejection of vaults or caskets from grave spaces. Identification for some of these individuals should have been straightforward as, since 2006, Louisiana law requires identifying information to be present on the exterior of caskets. However, only 4 of the 88 disrupted caskets that post-dated the law were in compliance. Including these 4, 12 caskets were able to be identified and reinterred without being opened. The remaining caskets had to be opened and required some level of analysis to establish the person’s identity. Anthropologists with the Louisiana Attorney General’s Office led the recovery and identification efforts, with assistance from the LA Department of Health, a disaster mortuary specialist, and anthropologists and students from the Louisiana State University Forensic Anthropology and Computer Enhancement Services (LSU FACES) Laboratory.

While the process of identification in this context mirrored forensic casework, the specialized circumstances required that additional steps be taken. Few records were available for the cemetery, so extensive post-disaster data collection was required to obtain “antemortem” comparative information. Efforts to gather data included mapping and documenting the existing graves and grave spaces and interviewing community and family members to determine who was (or had been) buried where, when, in what type of casket, and with what clothing or accessories. Recorded “postmortem” data included the biological profile and dental data for the decedent and information on antemortem trauma, personal artifacts, and the casket.

Intensive data collection was required for 119 individuals. Artifacts enclosed within the casket that bore the decedent’s name identified 60 people. All but 15 of the remaining individuals (a total of 94%) were identified by comparing the antemortem and postmortem data. In contrast to typical forensic casework, biological profile and dental data ultimately proved to be less helpful for identification, as these data were relatively homogeneous for the displaced individuals (i.e., many were elderly, edentulous, and of African ancestry). Rather, information on antemortem trauma and personal items was crucial in the identification process.

The challenges experienced at Plainview and other cemeteries, and their successful resolution, led to recently passed legislation establishing a formalized state response to disaster-related cemetery disruptions. Although each cemetery presents unique challenges, the protocols discussed here should provide a useful baseline for anthropologists in other areas when dealing with similar situations in the aftermath of natural disasters.

#### Forensic Anthropology, Natural Disasters, Identification