



## Physical Anthropology Section – 2003

### H68 The Role of Anthropology During the Identification of Victims From the World Trade Center Disaster

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After attending this presentation, the participant will become familiar with all of the different roles and contributions made by forensic anthropologists during the recovery and identification process of the World Trade Center Disaster.

This presentation has three objectives: (1) to illustrate where anthropological assistance was called upon and why, including how many anthropologists participated in NYC, their roles at Ground Zero, The Staten Island Landfill and at the Medical Examiner's Office, (2) a general overview of how the remains were processed from recovery to identification, including which traditional anthropological techniques were employed and which ones were obsolete due to the population size and the physical characteristics of the specimen received, and (3) to highlight some lessons learned during such an evolving and fluid situation. Protocols were modified and changed based on 10 months of feedback and simultaneous processing.

On the morning of September 11th, two fully fueled airliners were flown into the World Trade Center buildings in downtown Manhattan. Hundreds were killed instantly upon impact and thousands more perished when the two towers and five other commercial buildings collapsed. Subsequent to the collapses, fires continued to burn at over 1500 degrees for more than twelve weeks within the destruction site. The area of destruction covered over 16 acres and was piled over 70 feet tall, later to be excavated over 70 feet deep. The uncertainty in the initial number of reported missing and presumed dead prompted the Office of Chief Medical Examiner, New York City, to call upon the assistance of DMORT, the National Disaster Mortuary Operation Response Team, to provide ancillary staff of all types to assist with the disaster. In addition, assistance in the identification process was also provided by the New York City Police Department, the New York Port Authority, the New York Fire Department, the Department of Corrections, and the FBI. Specific to this presentation will be the role of the 30+ forensic anthropologists that came to assist in the recovery and identification process.

The recovery operation was very slow and difficult, and often very dangerous. Along with the danger of the fires and the constant watering, there were large pockets and void areas always threatening to collapse. The searches and excavations were done by hand and bucket brigades, as well as by huge grapplers, cranes, and other types of heavy machinery. Steel beams weighing many tons criss-crossed the entire site. The amount of destruction and pulverization was so extensive, that no piece of recognizable office furniture was found.

Anthropologists were assigned to work at the temporary morgue set up next to the recovery operation, the medical examiners office where all of the identifications were done, and at the Staten Island landfill where over 1.6 million of tons of debris from Ground Zero were transported and sifted manually and mechanically for human remains. The actual role of the anthropologists varied greatly from site to site. At the temporary morgue, the anthropologist helped sort out civilian and Member of Service remains, and later were called upon to assist in difficult recoveries of burned and commingled remains. At the landfill, the primary role of the anthropologist was to sort out human from non-human remains. The role of the anthropologist at the medical examiners office ranged from triage to bone identification. The anthropologist was the beginning of the assembly line, processing each case, sorting out commingled remains, labeling bone identifications and adding anthropological analysis when pertinent. In addition, anthropologists were later added at the end of the assembly line, rechecking links made by DNA to verify that the pieces can and did belong together. These roles also evolved over time as the operation changed.

After recovery at Ground Zero was complete, the role of the forensic anthropologist changed yet again, due to retrospective evaluations and the fact that the unidentified and unclaimed remains were to be dried and sealed in bags that were non-transparent. An anthropological verification protocol was established to recheck and provide more detail of the cases, once the sense of urgency settled. In addition, this verification program allowed reevaluation of cases that might have been commingled, needed resampling or where details were overlooked during the initial processing. The lessons which initiated the verification protocol are most valuable for the documentation and instructions needed in the future should another disaster of this magnitude or larger occur.

#### **Mass Fatality, Forensic Anthropology, Identification**