



## Physical Anthropology Section – 2004

### H54 Identifying the Dead: Methods Utilized for Undocumented Immigrants, 2001-2003

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After attending this presentation, the attendee may better appreciate the problems associated with effecting identification when sparse antemortem records are present. The attendee will also become familiar with how the Pima County Office of the Medical Examiner collects and archives information for those who are not identified.

This presentation will impact the forensic community and/or humanity by demonstrating how our office is coping with the identification of an increasing number of deaths associated with undocumented immigrants.

The Pima County Office of the Medical Examiner has investigated an increasingly growing number of deaths of undocumented immigrants over the past three years. This additional number of deaths has greatly impacted the office in several ways, to include an increased need for accurate antemortem data in order to effect the identification of these unfortunate individuals. To this end, our office works closely with the local office of the Mexican Consulate to exchange antemortem and postmortem information. This exchange of information, in the successful case, typically results in a circumstantial identification being effected. Defined here, circumstantial identifications strive to attain multiple consistencies between antemortem and postmortem records, and to exhibit no unexplainable inconsistencies. Positive identifications are defined here as relating to a unique correspondence between an antemortem record and a similar postmortem record, again while exhibiting no unexplainable inconsistencies. Among the latter, those based on fingerprint comparisons constitute a decided minority of the total number of identifications, while those based upon comparisons of dental or medical radiographs are virtually non-existent. Thus, the majority of the identifications our office has effected over the past three years have been of the circumstantial variety, based in part upon consistencies in "individuating" characteristics such as tattoos, dental features, scars, and other healed traumata. Mitochondrial DNA sequence comparisons have been utilized in selected cases and presently remain a tool within the circumstantial realm of identification because of the inherent sharing within a maternal lineage. The technique of skull-photo superimposition, another utilized tool, is also considered in most cases to be a form of circumstantial identification.

The Pima County Office of the Medical Examiner investigates deaths for three of the four counties that border Mexico, as well as another county to the immediate north, making our jurisdiction a formidable piece of the southern Arizonan landscape. Thus, a death resulting from an unsuccessful desert crossing into Arizona has a good chance of being investigated by our office. For the past two years (2002 and 2003) these cases have constituted approximately 10% of the yearly caseload. While the resources spent on performing the autopsy are commensurate with most other cases, and even less so when skeletal remains are examined, the resources expended on attempting to effect identification is decidedly greater than those cases involving US citizens. The principal reasons are two-fold: Firstly, because the vast majority of these deaths occur during the hottest months of the year, decomposition can render the victim's face unrecognizable within a few hours. Secondly, the scarcity of written antemortem records, due to either their non-existence or unavailability, creates a situation in which traditional comparisons can not be made.

Partly because of this, some of these individuals are not able to be identified, and eventually are subjected to a standard office protocol (developed for use on all unidentified remains) prior to being interred in a county cemetery (state law prohibits cremation in these cases). In this protocol, an extensive postmortem record is constructed, complete with radiographs (both dental and osseous) and tissue samples suitable for a possible future DNA comparison. It is hoped that by maintaining these postmortem records, each containing a full biological profile and recovery information, that potential future identifications could be made without the need of disinterment.

**Undocumented Immigrants, Positive Identification, Circumstantial Identification, Postmortem Record**