

Medicolegal Significance Determination of Human Skeletal Remains

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1 INTRODUCTION

This document describes procedures for determining whether human skeletal material is of medicolegal significance.

2 SCOPE

This document applies to Anthropology Examiners in the Trace Evidence Unit (TEU).

3 EQUIPMENT

- General laboratory supplies
- Personal protective equipment (e.g., lab coat, gloves, eye protection)

4 PROCEDURE

- A. The Forensic Anthropological Examinations Procedure will be followed.
- B. Medicolegal significance refers to determining whether remains are human skeletal material of recent origin. Most jurisdictions do not have a legal or scientific definition for the time period that characterizes remains as medicolegally significant.
- C. Conclusions regarding medicolegal significance are typically based on taphonomic alterations, biocultural factors, the context of the recovery scene, biological profile, and any artifacts associated with the remains.
- D. Examples of non-medicolegally significant remains include those from archaeological or prehistoric contexts, disturbed cemeteries, anatomical teaching collections, and wartime souvenirs (i.e., “trophy skulls”). Non-medicolegally significant remains may still be the subject of other criminal investigations and therefore of forensic importance.
- E. When conclusions regarding medicolegal significance are unclear, the default assumption will be that they are of medicolegal significance and appropriate procedures will be followed.
- F. For observations leading to a specific conclusion in a case, relevant reference literature will be used and cited. Appropriate reference literature includes relevant studies appearing in peer-reviewed journals or edited volumes and texts. Skeletal reference material includes bones, bone replicas, and bone casts produced or used for the purpose of skeletal examination and comparison.
- G. Classifications of human skeletal material may include:
 - Medicolegally significant – skeletal modifications, contextual indicators, and/or taphonomic signatures that are indicative of medicolegal significance to the exclusion of other reasonable possibilities
 - Cannot exclude as medicolegally significant – insufficient information to make a definitive determination of medicolegal significance but cannot exclude
 - Not medicolegally significant – skeletal modifications, contextual indicators or taphonomic signatures indicative of non-medicolegal significance
 - Inconclusive or undetermined – insufficient information for any conclusion

4.1 Taphonomic Alterations

- A. Taphonomic alterations relevant to the assessment of medicolegal significance are those that affect the appearance, quality and preservation of remains.
- B. Examples of taphonomy relevant to medicolegal significance include:
 - Condition of soft tissue (e.g., present, absent, mummified)
 - Bone preservation (e.g., hydrated/greasy, weathered, deteriorated)
 - Embalming practices (e.g., procedures, chemicals)
 - Features typical of anatomical teaching specimens (e.g., drill holds, hardware, patina)
 - Features typical of wartime souvenirs (e.g., paint, inscriptions)

4.2 Biocultural Factors

- A. Biocultural factors refer to skeletal adaptations and modifications that result from practices or activities which can often be associated with particular cultures or time periods. In some cases, assessment of ancestry may also be relevant.
- B. Biocultural factors relevant to medicolegal significance include:
 - Occlusal attrition (e.g., as in prehistoric Native Americans)
 - Cranial deformation (e.g., as in ancient Peruvian populations)
 - Trephination
 - Dental restorations
 - Surgical devices

4.3 Context and Artifacts

- A. Context and artifacts refer to features and items associated with but not inherent to the skeletal remains.
- B. Contextual information and artifacts relevant to medicolegal significance include:
 - Location of recovery (e.g., surface vs. burial, proximity to known cemeteries)
 - Personal effects (e.g., clothing, jewelry, driver's license, currency)
 - Coffin materials and hardware
 - Stone tools and pottery
 - Projectile points
 - Burial features (e.g., body position, arrangement)

4.4 Recommendations for Disposition and Further Testing

- A. In cases where remains are determined not to be of medicolegal significance, guidance may be provided to the contributor regarding the disposition of the remains. For example, in cases of Native American remains, the contributor should be advised of legislation regarding repatriation of such remains, and/or provided guidance on contacting the state archaeologist.
- B. In some cases, additional testing of remains or artifacts (e.g., radiocarbon dating) may be suggested if more information regarding antiquity is requested.

5 LIMITATIONS

The conclusions that can be reached from anthropological assessments of medicolegal significance are dependent on the condition and completeness of the remains, as well as knowledge of the recovery context and depositional environment. Results based on fragmentary or poorly preserved material or on limited contextual information may be inconclusive.

6 SAFETY

- While working with physical evidence, laboratory personnel will wear at least the minimum appropriate protective attire (e.g., laboratory coat, safety glasses, protective gloves).
- Universal precautions will be followed.
- Exposure to physical, biological, and chemical hazards may be associated with the examination techniques performed. Safety procedures related to specific materials, instruments or equipment will be followed. Refer to the [FBI Laboratory Safety Manual](#) for guidance.

7 REFERENCES

ANSI/ASB Standard 150. Standard for Determination of Medicolegal Significance from Skeletal Remains in Forensic Anthropology (current version)

ANTHRO-300: Forensic Anthropological Examinations (current version)

FBI Laboratory Safety Manual (current version)

8 REVISION HISTORY

Revision	Issued	Changes
01	02/10/2020	Changed 'forensic anthropologist' to 'Anthropology Examiner' in Scope and 'examiner' throughout. Removed 'Sample Selection' from Section 4 title. Updated fordisc to FORDISC throughout for consistency. Updated wartime souvenirs example in Section 5.1.
02	01/28/2022	Formatting and language changes to conform to new template.