



## Physical Anthropology Section – 2008

### H113 Evidentiary Standards for Forensic Anthropology

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After attending this presentation, the participant will understand the importance of establishing standards within the field of forensic anthropology and the role of a Scientific Working Group.

This presentation will impact the forensic science community by emphasizing the importance of judicial representations of scientific evidence. As issues of professional standards and error rates continue to be addressed in the courts, it is imperative that the field of Forensic Anthropology be proactive by developing professional standards for our discipline. One measure to create and maintain professional standards is through Scientific Working Groups (SWG).

Since the 1993 *Daubert* ruling, many forensic disciplines including anthropology have been forced to critically evaluate the techniques and methods used in their examinations. Disciplines like forensic anthropology may be problematic in the eyes of the courts since they employ a combination of traditional scientific methodologies and less rigorous observational methodologies, as well as case study evaluations. Critical questions and admissibility criteria of expert testimony have been established over the past two decades through three United States Supreme Court decisions. The decisions put forth from *Daubert v Merrell Dow Pharmaceuticals Inc.*,<sup>[1]</sup> *General Electric Co v Joiner*,<sup>[2]</sup> and *Kumho Tire Co v Carmichael*<sup>[3]</sup> were intended to ensure the reliability and usefulness of the scientific or technical testimony admitted as evidence.<sup>[4]</sup> As a result, several recent papers have advocated more earnest consideration of the *Daubert* guidelines when conducting research and preparing testimony in forensic anthropology. This has likely contributed to the increased awareness and interest in quantifying, critically assessing, and re-evaluating some of the techniques most often used by forensic anthropologists. The issues of professional standards and error rates, however, have been less often and less aggressively addressed. This paper aims to more specifically identify areas where the field of forensic anthropology may improve regarding these issues, and encourage discourse among anthropologists to establish and employ standards in our field.

The three court decisions, referred to as the trilogy,<sup>[4]</sup> outline the importance of judicial gate-keeping and emphasize the need for judges and legislators to set the standards for admitting testimony. It is recognized, however, that the standards for admissibility of expert testimony as determined by the courts are tethered to the standards of professional practice. Moreover, the *Daubert* opinion emphasizes that the courts should focus on principles and methodologies that underlie the evidence, not necessarily the conclusions they generate. At present there are no standards for the application of forensic anthropology methodologies including body recovery and skeletal analysis, and every organization has their own guidelines and standards their practitioners must follow. Some organizations such as JPAC and the FBI are accredited by the American Society of Crime Laboratory Directors (ASCLD), but ASCLD does not specifically recognize anthropology as an independently accreditable discipline. The American Board of Forensic Anthropology was created to examine and certify forensic anthropologists and set standards for their individual proficiency, but this organization does not (nor does any other organization) provide protocols to ensure consistency and reliability in the application of forensic anthropological methodologies.

An additional area that the authors acknowledge as in need of improvement is validation. While anthropologists have taken it upon themselves to validate and improve methods within the field, validation studies are often problematic due to the tendency of researchers to modify or adapt the techniques rather than test the methods as originally presented. The court ultimately decides the question of appropriate validation, but forensic anthropology as a discipline must set standards for a theoretical and empirical validation process to guide researchers and assist the courts. It is also important to understand that the point of developing methods under the rubric of evidentiary examination is not to completely quantify the field, and that subjectivity does not necessarily equal unreliability. Many forensic disciplines, including identification sciences like anthropology, involve some degree of subjectivity. It is therefore imperative to minimize the risk of error through proper training, quality assurance, validation, accreditation, and certification.

Creating and maintaining professional standards is performed in many disciplines by Scientific Working Groups (SWG). A SWG consists of a group of experts in a particular scientific discipline that meets periodically to formulate and review standards (for both examination protocols and validation testing) applied in their respective fields, and standards set by SWGs are increasingly recognized and considered by courts. It is the recommendation of the authors to construct a Forensic Anthropology SWG to develop professional standards for our discipline. As the courts continue to raise the bar regarding professional standards, forensic anthropology must be committed to providing analyses that are of the highest quality and reliability, and the authors believe that creating and adhering to recognized standards will facilitate achieving this objective.

#### **Daubert, Scientific Working Group (SWG), Standards**