H64 Material Culture Analysis in Forensic Cases: A Call for Formal Recognition by Forensic Anthropologists

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After attending this presentation, attendees will learn about precedents of anthropologists conducting material culture analysis for forensic identification and humanitarian investigations, they will appreciate the particular challenges faced, skills, and knowledge required and importance of both formal training and formalization of expertise in this endeavor.

This presentation will impact the forensic community by publicly addressing an aspect of forensic anthropological practice that has yet to be acknowledged and discussed in a detailed manner amongst practitioners. Continued neglect of the methods and objectives of material culture analysis by forensic anthropologists may lead to false or unwarranted conclusions in court or accusations of malpractice. It will be argued that standardized training and methodology are lacking and should be instituted to meet court requirements not only as they pertain to expertise but also to address concerns highlighted in rulings such as *R* v. *Mohan* and *Daubert* v. *Merrell Dow*.

This presentation advocates enhanced material culture analysis by forensic anthropologists for medico-legal investigations of identity, criminal, and civil investigation. Material culture, particularly that associated with other cultures and countries but also marginalized members of our own society, is currently practiced though poorly documented and rare discussion by anthropologists or other forensic scientists. Exceptions include early experimentation on decomposition by Morse and Daily (1985) and publications of this past year by Baraybar (2008), Birkby et al. (2008) and Daéid et al. (2008). The study of clothing and personal objects compliments other analyses performed by forensic anthropologists towards the determination of time since death, personal identification, and wound type. The examination of these materials can also contribute to a determination or estimation of sex, gender, stature, physique, age, ancestry/ethnicity, and minimum number of individuals. Analysis can validate or call into question physical anthropological methods and results.

Anthropologists have, can, and should conduct material culture analyses to various degrees. The level of action and participation is often dependent upon the context in which anthropologists are employed. At the Centre for Forensic Research at Simon Fraser University in British Columbia, clothing is often passed to the anthropologists along with the remains, following inspection by police, a pathologist, and the coroner. Results of analyses of these associated objects are included in forensic anthropology reports. Similar efforts are discussed—albeit in little detail—by Birkby et al. (2008) to establish a "cultural profile." They use information gleaned to help distinguish unidentified remains of illegal border crossers from Hispanics that are legally within the U.S.

In the investigation of wide-scale human rights violations, Baraybar et al. (2007) and Baraybar (2008) demonstrate the success and limitations of such analysis by anthropologists but also the necessity in environments where resources, including DNA technology, antemortem medical and dental records, may not be available for personal identification efforts. In the experience of these authors, even in wealthy countries medical or dental records may be non-existent or unavailable due to jurisdictional concerns and protocols or legal obligations of the protection of privacy of personal information. Thus the role of material culture plays a greater role. The same challenges that had been experienced in Kosovo, Peru, and Guatemala were also true in Iraq, despite the exceptionally generous funding from the United States government. In Iraq, however, the employment of a cultural anthropologist to examine material culture appears to have been an appropriate precedent.

In the context of repatriation of soldiers who have died in combat, where criminal prosecutions do not apply, police and pathologists are typically not involved. Drawing conclusions about identity (e.g., nation, military unit or division, rank, etc.) is therefore left to those conducting recovery and analysis of remains based on material culture and osteological analysis (e.g., archaeologists and anthropologists).

In such instances where a significant amount of time has passed or in conditions that promote quick decay of a body, material objects may preserve longer and/or better than osteological remains. The extended preservation of material remains may occur in regions with acidic soils, local conditions that promote dynamic site transformation, and places where perpetrators or civilians seeking the remains of loved ones have disturbed graves. Thus, where the condition of human remains is such that osteological analysis is severely limited, material culture analysis again becomes of primary importance and yet experience has shown that it is sometimes neglected by other professionals of various specializations and appears to be the formal domain of none.

For those with experience in these contexts it stands to reason that they have the requisite experience to conduct similar analyses in the context of domestic forensic investigations. It is argued that the person with the expertise, and thus responsibility for examining clothing and personal objects, is not well established; at

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times being performed by the police, pathologist, anthropologist or, in some cases, not at all. Anthropologists and archaeologists are generally trained and have experience in the analysis and interpretation of material culture created by various sectors of different societies. Forensic anthropologists are urged to assume a larger, more comprehensive role in the documentation and analysis of material culture.

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