H79 Establishing a Taphonomic Research Facility in the United Kingdom

Tal Simmons, PhD, Peter A. Cross, MSc, and Rachel E. Cunliffe, MSC, University of Central Lancashire, School of Forensic and Investigative Sciences, Preston, AS PR1 2HE, UNITED KINGDOM*

After attending this presentation, attendees will have an understanding of the ethical and legislative issues that impact the establishment of a taphonomic research facility using animal models in the United Kingdom. This will also enable comparison with the establishment of facilities using human cadavers within the United States.

This presentation will impact the forensic community by explaining the importance of and need for rigorous experimental taphonomy and the benefits which the uses of animal models bring to taphonomic research. This presentation will demonstrate that with the necessary resources, enthusiasm, commitment and determination, such centres of excellence can be established.

A number of taphonomic research facilities, using human cadavers, have been established in the United States. The Anthropological research Facility at the University of Tennessee was the first contributor to research in this field. More recent facilities include Texas State University, Western Carolina University, and Wichita State University. In May 2009, The University of Central Lancashire, United Kingdom, established TRACES (Taphonomic Research in Anthropology – Centre for Experimental Study), the first United Kingdom facility dedicated to taphonomic research using animal models.

While human cadaver use enables important direct comparisons to forensic cases, and facilitates small scale experimental study, the use of animal models enables much larger studies to be carried out and allows more robust experimental testing of factors that have been considered important influences of the processes of decomposition.

Whether a facility uses human cadavers or animal models the issues that arise can be common to both. Considerable investment of financial resources is required, and this can only be realised with support and commitment from the university's directorate level. A major factor

encountered in the establishment of such a facility anywhere is local community concerns, and these necessitate the need for lengthy consultation with both immediate neighbours and the wider local community. In the United Kingdom planning legislation is complex, and the potential restrictions that result can take considerable time to negotiate. Local authority planning approval is required for any change of land or building use, as well as new developments.

The use of animal models also poses specific ethical and legislative concerns, many specific to the United Kingdom, that require consideration. This begins at the university ethics board which will consider all research proposals relating to animal use. The production of animals specifically for taphonomic research is rarely allowed and such animals must have been bred and reared for commercial meat production and, therefore, destined for slaughter. Environmental protection, with particular emphasis on groundwater pollution is heavily regulated and will require both groundwater vulnerability assessments as well as liaison with external regulatory bodies. Veterinary input is essential to develop procedures and protocols to deal with animal welfare and slaughter. Recent events in the United Kingdom concerning outbreaks of Foot and Mouth, Avian Flu, and Blue Tongue Disease mean that a comprehensive bio-security protocol is required. Related to bio-security are the regulations relating the use of animal by-products and their disposal.

Taphonomic research using animal models is an important contributor to the forensic community, but the establishment of such facilities is complex. However, with the necessary commitment, expertise, enthusiasm and determination, such centres of excellence can be established.

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 ** Presenting Author*