



## Physical Anthropology Section – 2009

### H97 Going Green: Environmentally Sound Practices in Human Decomposition Research and Laboratory Settings

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After attending this presentation, attendees will have a better understanding of specific policies and procedures that can be implemented in their own practices to establish ecologically sensitive protocols for both forensic anthropological laboratory and research work in the handling, processing, and curation of human remains.

This presentation will impact the forensic community and the broader public at large by introducing ecologically-friendly approaches that researchers working with fresh and decomposing human remains can utilize in order to lessen the impact of harmful chemicals and products on the surrounding environment, and will identify areas where these changes can be made cost-effectively and with a minimum of interference or disturbance in already established practices.

The Forensic Anthropology Center at Texas State (FACTS) is now host to one of the largest outdoor human decomposition laboratories in the world. As a result of initial negative public reaction towards the establishment of this facility, the initially perceived negative concern (the introduction of decomposition, pollutants, and other harmful contaminants into the environment) was turned into a positive attribute. A "green" strategy has been consciously applied in as many aspects of the program as possible. The location of the Forensic Research Facility is just a few miles south of Austin, Texas, a city often ranked within the top ten of America's greenest communities in terms of recycling, energy, natural space, and transportation statistics.

In order to incorporate this same spirit of environmental responsibility, FACTS is making a concerted and systematic effort to incorporate various aspects of eco-friendly practice at multiple levels, including: (1) in addition to previously established avenues in the acquisition of body donations, the targeting and soliciting anatomical gifts from ecologically-minded citizens, (2) the acquisition of an alternative flex-fuel vehicle to use for both body donation retrieval and transportation to forensic anthropological crime scenes, (3) an adjustment of the procedures employed during the placement of human bodies for open-air, buried, covered, or surface decomposition scenarios to reflect the most environmentally safe options, (4) the products used in the cleaning and processing of human remains are largely composed of biobased, biodegradable enzymes, degreasers, and other naturally-derived products for body processing and skeletal preparation, and (5) the equipment and materials used in the archiving and curation of skeletal remains are specifically chosen to represent those items that are multiple-use, recyclable, or otherwise environmentally responsible options. FACTS is situating its anatomical body donation program into the bigger picture of ecological awareness by also promoting it to those individuals looking into "green burial" options, a newer trend in funeral services viewed as a natural alternative to traditional chemical embalming and coffin burials. In addition, in an effort to avoid the use of dangerous substances and to reduce the release of harmful chemicals into the soil and groundwater at the open-air decomposition facility, FACTS will not accept bodies into the body donation program that have been previously embalmed or preserved.

While FACTS has not achieved a completely green operation (and will never do so based on the realities of dealing with biohazardous waste, the need to observe universal precautions, and other intractable practicalities of forensic anthropological work), the laboratory is striving towards incorporating a full-range of alternatives and options that take advantage of newer products, technologies, and trends in the move towards a more ecologically-minded approach to research, community service, and laboratory protocol in forensic anthropological settings.

#### **Green Practice, Human Decomposition, Forensic Anthropology**