

# Forensic Research & Technology

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## Estimating the post-mortem interval in forensic practice

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Current methods to estimate the time since death focus heavily on indicators of early decomposition and have proved fairly accurate at estimating the time-since death in the early post-mortem period under experimental conditions. Translation of these methods into forensic practice has proved difficult and as it stands there is no standard methodology to estimate the Post-Mortem Interval (PMI) for forensic investigators to use when they encounter decomposed remains at unexplained death scenes. This study used photographs and daily recordings to assess the early to moderate decomposition states of 13 cadavers placed at varying time intervals between July and October 2015 at the Anthropology Research Facility at the University of Tennessee, Knoxville. Preliminary results suggest that variability in the decay rate is dependent on both accumulated-degree days and intrinsic body factors. These findings assisted in the development of the Giles-Harrison (GH) Decomposition Scale which can be used by forensic investigators to assist in their estimation of the PMI when dealing with early to moderate decomposed remains.

### Biography

Giles S is a Crime Scene Investigator for Thames Valley Police, the largest non-metropolitan police force in the UK and a part-time Forensic Anthropology PhD student at Cranfield University, Defence Academy of the United Kingdom. She has been an operational Crime Scene Investigator since February 2014 and has so far examined approximately 600 crime scenes. She holds a distinction MSc in Forensic Anthropology and Archaeology and a First Class BSc in Medical Sciences from the University of Leeds. During her MSc, she secured a research scholarship at the Anthropology Research Facility ("The Body Farm"), Knoxville, University of Tennessee. Here she developed a new method to estimate the time since death from decomposition states and conducted research utilising the William Bass Skeletal Collection. Following her Master's, she was awarded the "Forensic Science Society Prize", "Head of School Prize", "Inforce Prize", "Top Student on the Forensic Programme Award" and the "Cranfield Forensic Institute Distinction Prize". She holds Associate Membership of the Chartered Society of Forensic Sciences.

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