

Estimation *of the* Time since Death

Current Research and Future Trends

Estimation of the Time Since Death is a current comprehensive work on the methods and research advances into the time since death and human decomposition. This work provides practitioners a starting point for research and practice to assist with the identification and analysis of human remains. It contains a collection of the latest scientific research, various estimation methods, and includes case studies, to highlight methodological application to real cases.

This reference first provides an introduction, including the early post-mortem period, biochemical methods, and the value of entomology in estimating the time since death, along with other factors affecting the decomposition process. Further coverage explores importance of microbial communities in estimating time since death. Separate chapters on aquatic environments, carbon 14 dating and amino acid racemization, and total body scoring will round out the reference. A concluding chapter summarizes research and outlines the direction it should follow.

- Chapters are written by practicing pathologists, physical anthropologists and scientists in related fields and also include their latest research on the topics. This book is a one of a kind resource for researchers and academics in determining the time since death in decomposing human remains.
- The first comprehensive reference bringing together all aspects of knowledge relating to the estimation of the post-mortem interval in decomposed human bodies
- Contains real case studies to underscore key estimation concepts
- Demonstrates the changing role of technology and advances in the estimation of time since death

ABOUT THE EDITORS:

Jarvis Hayman is a retired surgeon who studied archaeology, completing a Master's degree at the Australian National University in Canberra with a thesis on the archaeology of the Scottish Highland Clearances. He then combined his medical and archaeological knowledge to complete a PhD on the estimation of the time since death in decomposed human bodies in Australian conditions. His research areas of interest are: historical archaeology and forensic archaeology/anthropology. He is a Visiting Fellow at the Australian National University and the co-author of *Human Body Decomposition*.

Marc Oxenham is a Professor in Bioarchaeology at the Australian National University, Canberra, Australia. His expertise in human skeletal biology has been recognized nationally through invitations to consult on a range of forensic cases for the Australian Federal Police, Australian Government Solicitor, The Australian Defense Forces (in-particular Unrecovered War Casualties-Army) as well as the New South Wales Police Force. His main research has concentrated on exploring aspects of human palaeopathology and behavior by way of analyses of human skeletal and dental material. He has held teaching and research positions at Colorado College, USA, and the ANU. He was president of the Australasian Society of Human Biology (2012-14), an Australian Future Fellow (2013-17), elected a Fellow of the Society of Antiquaries of London in 2011 and elected a Fellow of the Australian Academy of the Humanities in 2016.



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