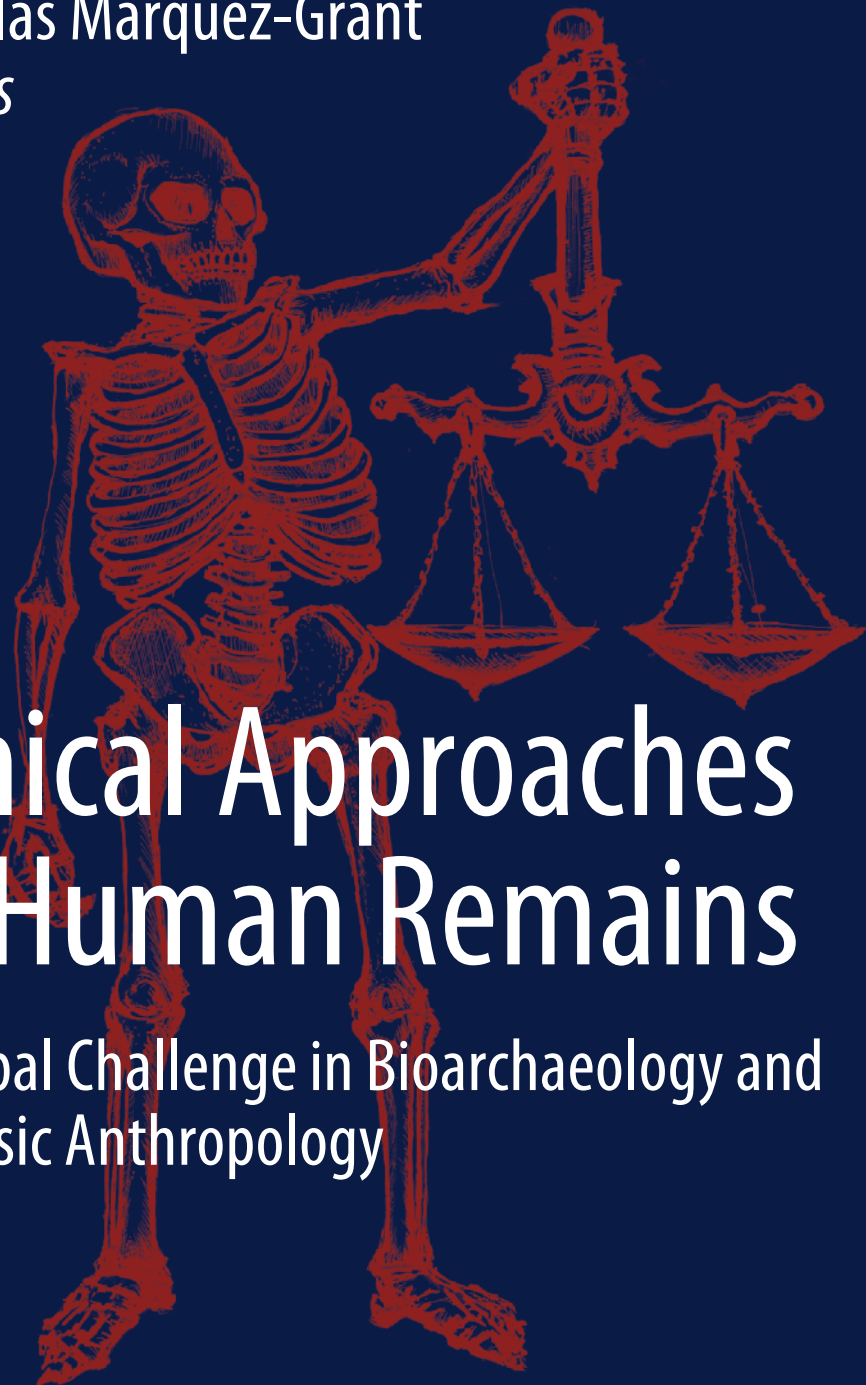


Kirsty Squires  
David Errickson  
Nicholas Márquez-Grant  
*Editors*



# Ethical Approaches to Human Remains

A Global Challenge in Bioarchaeology and  
Forensic Anthropology



Springer

# Ethical Approaches to Human Remains

Kirsty Squires · David Errickson ·  
Nicholas Márquez-Grant  
Editors

# Ethical Approaches to Human Remains

A Global Challenge in Bioarchaeology  
and Forensic Anthropology

 Springer

*Editors*

Kirsty Squires  
School of Law, Policing and Forensics  
Staffordshire University, Science Centre  
Stoke-on-Trent, UK

David Errickson  
Defence Academy of the United Kingdom  
Cranfield Forensic Institute, Cranfield  
University  
Shrivenham, UK

Nicholas Márquez-Grant  
Defence Academy of the United Kingdom  
Cranfield Forensic Institute, Cranfield  
University  
Shrivenham, UK

ISBN 978-3-030-32925-9

ISBN 978-3-030-32926-6 (eBook)

<https://doi.org/10.1007/978-3-030-32926-6>

© Springer Nature Switzerland AG 2019, corrected publication 2020

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Front cover image by Eduardo Hernandez©

This Springer imprint is published by the registered company Springer Nature Switzerland AG  
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

## Foreword by Clark Spencer Larsen

The disciplines that involve working with human remains are indebted to editors Squires, Errickson, and Márquez-Grant for their efforts in bringing together this remarkable collection of papers on the ethical challenges of working with human remains. I predict that this book will be fundamental to the ongoing discussion of building a better, more productive, and more informed understanding of the ethical treatment of human remains. The subject matter pertains especially to ethics in bioarchaeology and forensic anthropology, two complementary fields unified by a common theme—ethical issues surrounding access to and study of the remains of once-living human beings. The editors and contributors make clear that while bioarchaeology focuses primarily on the analysis of human remains from archaeological settings, forensic anthropology is primarily engaged in medico legal issues relating to individual identification and death circumstances of the recently deceased. Both fields, however, focus on the identification and study of the remains of the dead. Moreover, the content of the book is not restricted to discussions of what scientists think and do during the identification process and analysis of human remains. Rather, the book presents multiple perspectives on the remarkable complexity of ethical and other issues concerning the treatment of human remains.

The questions addressed and objectives discussed regarding the treatment of the remains of once-living people—both ancient and recent—are diverse. However, the chapters presented in this remarkable volume reveal the great distances bioarchaeologists and forensic anthropologists have come in recent years, especially in their efforts to elevate the importance of the ethical management of human remains, no matter how recent or how ancient. Indeed, it is a daunting task to compile a compendium of contributions that address such a wide range of ethical issues associated with the remains of the once-living. However, I believe that much has been achieved in the book by presenting this range of native, regional, and scientific perspectives.

I also believe that all contributors to the book would agree with me in my saying that the application of ethics to the handling and analysis of human remains has a beginning point but no end point. In this regard, ethical treatment begins from the point of discovery of the remains of deceased individuals, no matter the context.

Ethics in this regard should not start after the recovery of remains, or at some point during scientific study, or following years or even multiple decades of curation in a museum facility. Regardless of manner or origin of discovery, it is imperative that the ethical treatment of human remains is in place as a permanent behaviour. Indeed, the collection of papers provides additional and pivotal recommendations for the period of time well-preceding discovery. That is, ethics begin with formal training and preparation of students who are planning careers that will potentially involve the discovery of the remains of deceased individuals. Ethics also involves engagement with the public regarding appropriate responses to outreach (or discovery) events. Regardless, ethics can be greatly enhanced by understanding that the remains of deceased persons were once-living people. Importantly, respect for deceased individuals is engendered by a viewpoint that I share with all of my students. I emphasise at the beginning of each osteology course that we are not in the class to learn how to identify human teeth and bones, but rather to fully appreciate the remains of deceased individuals as once-living persons and to view the remains of the deceased *as though the persons the remains represent are alive today*. Of course, the remains are not alive, but the tools in hand now make it possible to reconstruct key aspects of life from the remains of deceased persons.

The high value given to *respect* is especially well articulated in the book's opening chapter by Lydia de Tienda Palop and Brais X. Currás, who focus their contribution on the perspective that dignity applies to all persons, both living *and* deceased. This compelling beginning chapter sets the tone for the entire book, reminding me of my own realisation as a student that the study of human remains in social, cultural, and behavioural context provides an avenue for viewing the remains of the deceased as a person and not as a collection of objects. By doing so, we consider ancient remains as once-living people who had meaning and purpose during their lifetimes.

I was thrilled to read the perspectives presented from different regions of the world. For example, Charlotte A. Roberts's account of how archaeological human remains has gone through a series of stages over the course of her career. In the UK and elsewhere, just several decades ago, there were relatively few trained experts in bioarchaeology or forensic anthropology, especially in proportion to other sub-disciplines in the broader fields of biological (physical) anthropology or archaeology. The remarkable growth in these areas in a number of countries is impressive, as is the availability of many more opportunities for study and training, academic and applied training, and increased infrastructure for care of the remains of deceased. These developments have established significance to bioarchaeology and forensic anthropology for understanding the human past. Simply, bioarchaeology and forensic anthropology are giving greater "voice" to the dead. On the one hand, science associated with these fields is facilitating greater understanding of the human past, and increasingly so as we strive to understand once-living people who engaged in their own cultures and societies. On the other hand, the increased

breadth of the sciences involved in the analysis of past people is simultaneously promoting standards of conduct in the study and handling of the remains of past people. In fundamental ways, the increased attention to ethics pertaining to human remains is advancing the broadening understanding of appropriate treatment of our ancestors, both ancient and recent. This book does exactly that.

Clark Spencer Larsen  
Department of Anthropology, Smith Laboratory  
Ohio State University  
Columbus, OH, USA  
e-mail: [Larsen.53@osu.edu](mailto:Larsen.53@osu.edu)

---

The original version of this book was revised: The Chapters 2, 6, 18, 19, 23, and Backmatter citations have been corrected. The corrections to the book is available at [https://doi.org/10.1007/978-3-030-32926-6\\_31](https://doi.org/10.1007/978-3-030-32926-6_31)

## Foreword by Christopher J. Knüsel

By law no one can own the dead, but does this mean that the dead should have rights similar to those accorded to the living? This volume investigates this question by looking at examples of the treatment of the dead cross-culturally and under various social circumstances. This book is as much a practical reference for the worldwide treatment of human remains in a variety of circumstances as it is a philosophical and theoretical endeavour for attributing ‘respect’ to the remains of the dead, a difficult to define abstraction, but one given form and definition as a result of the enquiries presented.

The maturity of a discipline can be measured in its capacity for self-reflection. This self-reflection often contributes to the creation of ethical codes of conduct and guidelines for professional practice that may then lead to disciplinary professionalisation through the adoption of standard working practices and formal systems of professional accreditation and certification. From the earliest developments of physical anthropology, by Paul Broca in the mid-nineteenth century through to Aleš Hrdlička and Franz Boas’ developments in the first half of the twentieth century, what has become biological anthropology still suffers since its origin in a racial paradigm developed in an atmosphere of nationalism, colonialism, and exclusion. By contrast, approaches found in this volume reflect the coming of age of a discipline that was the domain of pioneers with broad and varied intellectual interests or inspired hobbyists in the early modern period.

Only in the opening decades of the twenty-first century could the question of the rights of the dead arise. This is due to the development and application of methods that respond to the desire to establish the personal identity of the deceased, even if only skeletonised remains or DNA survives. The ethics associated with the dead could only have arisen due to the practice of retention of such remains and their role to aid the process of restoring identity in whole or in part (the latter being the case for most bioarchaeological efforts due to the lack of a known identity or, in other words, a name). The dead act as testaments to and—when presented in a court of law—evidence of the actions of the living, whether from long ago or more recently. This question thus implies a conundrum: without the study of the dead, the dead remain unknown, so without study, the question could not be posed in the first place.



This extends to groups as well. In this volume, Fossheim (p. 71) notes: “In line with basic research ethical principles, it is the wellbeing of those now living, which forms the most central consideration .... Where there are continuities between previous populations and identifiable groups of today, knowledge of such representativeness is necessary for acting ethically and for reaching legitimate solutions”. The question then becomes: if the remains of the dead are to be analysed, for how long should they be retained and, more importantly, under what circumstances is retention both permissible and justified? The claim that there is nothing to learn from the remains of the deceased is no longer in question, but the supposition that somehow all questions posed can be addressed as a result of a single, all-encompassing study is now also less conceivable due to the continued development of new methods, analytical techniques, and concepts. It is rather the manner and context of such study that draws the attention of the contributors to this volume.

Like many other origin and development scenarios known from history, the question of the rights accorded to the dead comes after a variety of protocols have been established to address new questions and circumstances, as much as from a major change in ethical principles or guiding philosophies. This book demonstrates that the rights of the deceased, if not a completely new topic, is a subject of renewed interest against the backdrop of multiple and incompletely formulated policies and statements—even more so today than in the past, due to rapid communication and dissemination fostered by the Internet and social media. This seems justification enough for this volume; its scope is broad and intellectually stimulating, as well as being of practical value.

The development of the Internet, created as it was in an atmosphere of providing information freely to all, a seemingly unquestionable virtuous endeavour, has operated for some years without close ethical scrutiny. However, the negative aspects of the Internet and globalisation have become all too evident over time. It, too, has been used to aid the trade in antiquities, as well as of human remains. The latter trade is rarely mentioned, let alone controlled by Internet venues, which begs the question of whether an ethical private commercial trade in human remains is even possible.

Scenarios by which to judge the rights of the dead in the context of what they mean for the living are explored in these pages: from discovery to field recovery, laboratory analysis, and destructive sampling to support such analyses; to dissemination of the results to survivors, including descendants, and how the dead are commemorated, displayed in museums, presented in publication, and on the Internet. The still-to-be-determined donation of an identified skeletal collection from the exhumed remains of the recent dead from crowded urban cemeteries in Lisbon (Portugal) to Simon Fraser University in Canada forms a pivotal scenario. This permits insight into the diverse historical perceptions and practical responses to the ever-increasing numbers of accumulating dead that require much more varied and more practically guided responses than entailed by an opposition between scientific and sociocultural perceptions of the dead. A recurrent theme of this volume is the distinction drawn between the ‘forgotten death’ and the ‘present death’, the long dead and the recent dead, the difference here being equivalent to those deceased in living memory and those that have passed beyond living memory.

What joins them is the desire to be remembered, and bioanthropological research provides an avenue to meet this desire.

Although there are a number of very informative treatments from the UK and USA included here, there are also those from less often considered regions of the world that aid to reveal the effects of differing political, social, and economic circumstances, as well as religious influences on attitudes to the dead and their remains. As noted by Halcrow et al. (this volume, p. 470), in Buddhism, the dominant belief in much of Southeast Asia, the body is not seen as integral to the spirit of a person, so the remains of the dead are not perceived to be sacred, but among Animists in the same region, excavating human remains is deemed to be abhorrent.

More than the social identity of the deceased, the ‘cultural’ milieu that governed the original funerary deposition is not clear until after analysis of the human remains and their context; these are not at all obvious upon first exposure of the remains. To arrive at a semblance of such abstract notions requires detailed recording of the grave and its context, in addition to the study of human remains, and the application of an array of scientific techniques to the depositional findspot and its contents, both human and artefactual, is fundamental to achieve this understanding. Dignity in these circumstances appears to be the antithesis of what is implied by the terms ‘restful peace’. Remains displayed in a museum mean that the dead continue to influence and interact with the living, a circumstance that would appear to be a closer approximation to the notion of personal dignity of some present and many past communities. In fact, the cultural response might be more along the lines of ‘how come we were forgotten and are no longer permitted to participate in the lives of our descendants’, as much as attributable to a notion of a ‘restful peace’.

Even if the dead are no longer recognisable as individuals, do the dead—as a whole—have inalienable rights? The dead, if not wholly lacking in agency, have reduced agency, preserved only in the memory of others, but does this exclude them from having rights? In all such questions, there is a sense of omniscience that traverses space and time. The humans of today have no map of where the dead may be found; they are often encountered surreptitiously, and this randomness means that any rights the dead may have are fragile and tenuous—and wholly in the hands of the living. In essence, this book broaches the question of what it means to be human in a social, philosophical, and juridical sense, rather than the more commonly found evolutionary sense that is often predicated on the emergence of uniquely human behaviour. Ultimately, it delves into the meaning of mortality and what that means for corporeal remains of the dead, rather than of the soul or essence of the dead individual, which is the concern of belief and religion.

The 1989 Vermillion Accord, which stipulates that relationships of mutual respect are to be encouraged between archaeological science and Indigenous communities, is not binding, even if internationally targeted. Dialogue is the recommended course of action on a case-by-case basis. In some parts of the world where there are no guidelines for the recovery of human remains, let alone legal frameworks in place to establish legal precedent, as in Zimbabwe, discussion on the

matter is clearly required. Investigation of the dead permits a re-balancing of history to provide accounts that were suppressed or ignored due to political circumstances, for example of the Republican dead in the Spanish Civil War. The chapter by Renshaw demonstrates the unequal treatment accorded to the war dead due to modern conflicted sympathies and politics, as well as logistical problems created by the number and dispersed war dead on a vast geographic scale, lack of sufficient numbers of trained forensic practitioners, and the cost of exhumation and repatriation. Consensual approaches are rightly recommended throughout these chapters to come to agreements that permit research and study, for "...there is a universal mode of dealing with these issues, where to unearth and individually identify the remains is 'for the greater good' and a necessary part of justice, healing, and reconciliation" (Bennett, this volume, p. 579). There is more than one ethical stance at play in this question of the rights of the dead, but not to identify and be remembered is viewed as a 'second killing' in several contexts described in these pages. Implicit in bioarchaeology is the notion of holistic research that involves and communicates its results on the lives of the dead for the benefit of the living. Palop and Currás' (this volume, p. 32) comment provides a wonderful justification for past and future bioarchaeological enquiry: "Well-conducted archaeological practices restore dignity to the subject by reconstructing and respecting their memory". The ethical stance recommended in this volume seems to be to never forget the dead, to treat their remains with respect and dignity, but also to realise their fundamental importance for understanding the world of the living. Ultimately, the search for intellectual immortality is a search worth making.

Christopher J. Knüsel  
De la Préhistoire à l'Actuel: Culture, Environnement  
et Anthropologie (PACEA)  
Université de Bordeaux, UMR5199 PACEA  
Pessac Cedex, France  
e-mail: [christopher.knusel@u-bordeaux.fr](mailto:christopher.knusel@u-bordeaux.fr)

## Foreword by Simon Mays

The extent to which practitioners consider the ethical implications of their work, and the wider social and moral responsibilities that these entail, is a measure of the maturity of a scientific discipline. On that basis, both bioarchaeology and forensic anthropology have matured a great deal in the last 30 years. This book, with its wide-ranging consideration of ethical issues, is testament to that. I am delighted to be able to offer support for this volume by contributing a few personal thoughts on the development of ethical approaches to excavated human remains, from my perspective as an archaeologist in Britain.

By the late 1980s in Britain, we were increasingly aware that colleagues at museums in North America and Australasia were facing calls from Indigenous groups for repatriation of human remains. However, in Britain at that time, debates regarding ethical treatment of remains were muted to say the least. I even recall being advised that discussing ethical issues and human remains openly might be unwise as it could help place museum collections here at risk. Nevertheless, debates in Britain, particularly regarding the status of overseas human remains in museums, began to gather an unstoppable momentum through the late 1980s and into the 1990s. An important stimulus for this was the founding of the World Archaeological Congress (WAC), spearheaded by Prof. Peter Ucko, in the second half of the 1980s.

WAC explicitly recognised that archaeology should have a wider ethical, social, and political role, and one of its aims was to give a voice to minorities and Indigenous communities who had hitherto been marginalised in archaeology. From the start, WAC concerned itself with the question of repatriation of human remains to Indigenous groups. Initiatives such as the Vermillion Accord (1989) helped promote debates within the global archaeological community regarding the ethics of the continued holding of overseas human remains in Western museums.

In Britain, the movement towards repatriation received support at governmental level when, in 2000, the UK and Australian Prime Ministers agreed to take measures to facilitate the repatriation of remains of Australian origin held in UK museums to Aboriginal representatives. As part of this initiative, a guidance document sponsored by the UK government was produced. This gave guidelines for

museums on handling claims for repatriation of human remains. The approach taken towards evaluating claims in this document was strongly influenced by the NAGPRA legislation enacted in 1990 in the USA that provided for the repatriation of remains in US museums to Native American communities.

By contrast, there was still little debate about the treatment of human remains excavated from British archaeological sites. This largely reflects the fact that there was no widespread public disquiet towards excavating and studying ancient burials, and indeed recent public opinion surveys suggest this remains the case. However, not everyone was happy. Commentating on the ‘reburial issue’ in 2004, Don Brothwell remarked that although it might seem absurd and unlikely, it was not beyond the bounds of possibility that modern British practitioners of Pagan beliefs might begin to press for reburial of prehistoric British remains. In the years that followed, this became a reality, as some Pagan organisations did just this. The issue was debated through the pages of archaeology magazines, online platforms, and through direct dialogue between professional archaeologists and Pagan groups.

The question of retention/display of remains in museums versus reburial continues to occupy a central role in ethical debates. This is rightly so, because our discipline depends upon the study of curated remains for its survival, and display of skeletons in museums is a vital way of engaging the public in what we do. However, as this book demonstrates, over the last ten years one of the major developments has been the broadening of debate to encompass other aspects of the treatment of human remains. In part, technological advances have driven this. The rise of biomolecular methods has resulted in an increase in requests for destructive sampling, and the tension between the generation of new knowledge using these methods and the need to keep collections intact for future researchers is at the heart of many of the ethical dilemmas that this raises. The rise of the Internet has facilitated trading in bones and other human tissue, and social media platforms provide a forum for the sharing of images of human remains online. These are areas, which raise significant ethical issues.

Human remains provide unparalleled insights into past lives. They help us to understand the ways of individuals and communities that would otherwise be forgotten. This is a powerful ethical imperative for the study of human remains. We need to be advocates for this, both among our colleagues in other areas of archaeology and to the wider public. In the past, as a profession I think we tended to shy away from debate, hoping to be left in peace to pursue our studies. Such a naïve view failed to come to terms with the wider implications of archaeological work, and so was itself arguably unethical. Building a coherent ethical framework within which to conduct our work is vital to the health of the discipline. To do so requires engagement in open debate over ethical matters. It is in that spirit that I welcome this volume.

Simon Mays  
Historic England, Fort Cumberland  
Portsmouth, UK  
e-mail: [Simon.mays@HistoricEngland.org.uk](mailto:Simon.mays@HistoricEngland.org.uk)

# Acknowledgements

Kirsty Squires, David Errickson, and Nicholas Márquez-Grant would like to thank a number of people for making this publication possible. Firstly, we thank Chris Wilby, Floor Oosting, and Rajan Muthu at Springer for their patience and support through the process of getting this book published. We are extremely grateful for all of the time and effort each of the individual contributors has put into our sometimes complex process, and without you this book would not have been possible. Likewise, we are very grateful for each anonymous reviewer and their significant dedication to the peer-reviewing process, their helpful comments, and suggestions which helped improve this volume. Thanks are also due to Eduardo Hernandez for producing the image on the front cover of this book.

A special thank you is to be given to Dr. Jennifer Grant. Jennifer has continually and tirelessly supported the editing process by proofreading the contributions. We are very much indebted to you.

We would also like to thank our families, our close friends, and colleagues who have unconditionally supported us day or night throughout this long process. In particular, we would like to dedicate this book to:

Kirsty Squires: To my grandfather Anthony, my mother Diane, my father Alan, Adam, Maxine, Gary, and Eduardo.

David Errickson: To Claire and my friends Carter, Martyn, G, Hill, Luke, Mark, and Tom.

Nicholas Márquez-Grant: To my mother Jennifer, my dad José, Carlos, and Izan. To Gloria.

# Contents

<b>1</b>	<b>Introduction</b> .....	<b>1</b>
	Kirsty Squires, David Errickson and Nicholas Márquez-Grant	
<b>Part I Ethical Issues Surrounding Human Remains</b>		
<b>2</b>	<b>The Dignity of the Dead: Ethical Reflections on the Archaeology of Human Remains</b> .....	<b>19</b>
	Lydia de Tienda Palop and Brais X. Currás	
<b>3</b>	<b>What Remains? Human Rights After Death</b> .....	<b>39</b>
	Claire Moon	
<b>4</b>	<b>Research on Human Remains: An Ethics of Representativeness</b> .....	<b>59</b>
	Hallvard J. Fossheim	
<b>5</b>	<b>The Ethical Awakening of Human Anatomy: Reassessing the Past and Envisioning a More Ethical Future</b> .....	<b>73</b>
	David Gareth Jones	
<b>6</b>	<b>Serious Enquiries Only, Please: Ethical Issues Raised by the Online Human Remains Trade</b> .....	<b>95</b>
	Damien Huffer and Nathan Charlton	
<b>Part II Ethical Dilemmas in Bioarchaeology and Forensic Anthropology</b>		
<b>7</b>	<b>Ethical and Practical Challenges of Working with Archaeological Human Remains, with a Focus on the UK</b> .....	<b>133</b>
	Charlotte A. Roberts	
<b>8</b>	<b>Ethical Considerations in the Excavation of Burials in England: A Perspective from Developer Led Archaeology</b> .....	<b>157</b>
	Louise Loe and Sharon Clough	

**9 ‘The Dead Teach the Living’: Ethical Considerations Concerning the Management of Collections of Human Remains in Universities** . . . . . 179  
Anwen Caffell and Tina Jakob

**10 Human Remains in Museum Collections in the United Kingdom** . . . . . 211  
Heather Bonney, Jelena Bekvalac and Carina Phillips

**11 Rethinking Purpose, Protocol, and Popularity in Displaying the Dead in Museums** . . . . . 239  
Trish Biers

**12 The Ethics of Sampling Human Skeletal Remains for Destructive Analyses** . . . . . 265  
Kirsty Squires, Thomas Booth and Charlotte A. Roberts

**13 Sharing Is Not Always Caring: Social Media and the Dead** . . . . . 299  
David Errickson and Tim J. U. Thompson

**14 3D Data in Human Remains Disciplines: The Ethical Challenges** . . . . . 315  
Sian E. Smith and Cara S. Hirst

**15 Ethical Concerns in Forensic Anthropology** . . . . . 347  
Nicholas Márquez-Grant, Nicholas V. Passalacqua, Marin A. Pilloud, Nicola Lester, Summer Decker and Jonathan Ford

**16 The Ethical Considerations for Creating a Human Taphonomy Facility in the United Kingdom** . . . . . 367  
Anna Williams, John P. Cassella and Jamie K. Pringle

**Part III Global Perspectives and Case Studies**

**17 Ethical Perspectives in Forensic Anthropology and Museum Curation in the United States of America** . . . . . 387  
Douglas H. Ubelaker and Haley Khosrowshahi

**18 Culturally Sensitive and Scientifically Sound: Ethical Challenges of Human Osteology in Contemporary Archaeology in the United States of America** . . . . . 401  
Rebekah Loveless and Brandon Linton

**19 Ethical Issues of Bioarchaeology in New Zealand-Aotearoa: Relationships, Research, and Repatriation** . . . . . 431  
Helen Gilmore, Amber Aranui and Siân E. Halcrow



**20 Ethical Considerations in Human Remains Based Research in Argentina** ..... 447  
 Rocío García-Mancuso, Marcos Plischuk, Bárbara Desántolo, Gonzalo Garizoain and Marina Laura Sardi

**21 Ethical Issues of Bioarchaeology in Southeast Asia** ..... 465  
 Siân E. Halcrow, Rebecca Crozier, Kate M. Domett, Thanik Lertcharnrit, Jennifer S. Newton, Louise G. Shewan and Stacey M. Ward

**22 Ethical Considerations of the Management of the Dead in the Middle East** ..... 485  
 Sakher AlQahtani and Joe Adserias-Garriga

**23 “Not of One’s Body”: The Creation of Identified Skeletal Collections with Portuguese Human Remains** ..... 503  
 Francisca Alves-Cardoso

**24 Ethical Considerations in the Investigation and Commemoration of Mass Graves from the Spanish Civil War** ..... 519  
 Layla Renshaw

**25 Killing Them Twice: Ethical Challenges in the Analysis of Human Remains from the Two World Wars** ..... 541  
 Andrew S. Robertshaw

**26 Between the Archaeological and the Criminal Cases: Human Remains and Ethical Issues in Russia** ..... 557  
 Tatiana Shvedchikova

**27 Human Remains from the Khmer Rouge Regime, Cambodia** ..... 567  
 Caroline Bennett

**28 Ethical Issues of Working with Human Remains in Zimbabwe** ... 583  
 Keith Silika and Kirsty Squires

**29 The Mummy Autopsy: Some Ethical Considerations** ..... 605  
 Dario Piombino-Mascali and Heather Gill-Frerking

**30 Concluding Remarks** ..... 627  
 Kirsty Squires, David Errickson and Nicholas Márquez-Grant

**Correction to: Ethical Approaches to Human Remains** ..... C1  
 Kirsty Squires, David Errickson and Nicholas Márquez-Grant

**Index** ..... 633

# List of Figures

Fig. 6.1	“Human skull plus or minus 800 years old” for sale on Marktplaats.com, 25th November 2017. Text reads: “Human skull (male) presumably from Friesland. Only for study purposes. Preferably pick up, send only at your own risk and after payment.” . . . . .	103
Fig. 6.2	Facebook post from a human remains collecting group; the poster requests help in tracking down a stolen specimen . . . . .	104
Fig. 6.3	Facebook post from a human remains collecting group; the poster identifies a suspected scam artist and warns the group about interacting with them . . . . .	105
Fig. 6.4	<b>a, b</b> Facebook post from a human remains collecting group; an example of the attempted use of eBay to sell an alleged oddity associated with Jeffrey Dahmer, with the original poster and commenting group members expressing opinions as to its authenticity. . . . .	106
Fig. 6.5	Facebook post from a human remains collecting group; a prominent private collector questions the authenticity of the specimens offered in a forthcoming auction. . . . .	107
Fig. 6.6	<b>a, b</b> Facebook post from a human remains collecting group; group members discuss whether or not a specimen the original poster wished to sell was what it was claimed to be . . . . .	107
Fig. 6.7	Facebook post from a human remains collecting group; the original poster describes the creation of a composite piece . . . . .	108
Fig. 6.8	<b>a, b</b> Facebook post from a human remains collecting group; the original poster and commenting group members discuss shipping methods and customs regulations . . . . .	109
Fig. 6.9	Facebook post from a human remains collecting group; the original poster and commenting group members further discuss shipping methods and customs regulations . . . . .	109

Fig. 6.10 Facebook post from a human remains collecting group; the original poster and commenting group members discuss difficulties shipping to the United States of America from Belgium. . . . . 110

Fig. 6.11 Facebook post from a human remains collecting group; an alleged pre-Colombian Incan skull is offered for sale . . . . . 111

Fig. 6.12 UK based Instagram post in which two human mandibles are proffered for sale, one of which was allegedly purchased from an archaeologist . . . . . 112

Fig. 6.13 Facebook post from a human remains collecting group; the original poster advertises a South American male skull for sale within the United States of America. The poster states that a tooth has been removed for “testing”. . . . . 113

Fig. 6.14 **a, b** US based Instagram posts in which an individual associated with a private “museum” presents four examples of ‘overmodeled’ skulls from New Guinea. Followers are challenged to identify which one is an authentic c. 1800s specimen . . . . . 114

Fig. 6.15 Facebook post from a human remains collecting group; the original poster displays a *tsantsa* (“shrunken head”) allegedly obtained from the Eretz Museum in Tel Aviv (Israel) after extensive scientific testing. The superimposed URL links to a webpage where prospective buyers can discuss prices and arrange confidential sale. . . . . 115

Fig. 6.16 Screen shot of a video showing the clandestine excavation of human remains, potentially in Nagaland (India) on an unknown date and time (Jamir 2017). . . . . 116

Fig. 6.17 Screen shot of a video which depicts an interview with the ex-fiancée of the late William “Bill” Jamieson describing his collection, collecting practices, and the Treasure Traders show in which his collection featured before later dispersal (Global News 2012) . . . . . 116

Fig. 6.18 Instagram post whereby the original poster displays an alleged Iban Dayak skull in their possession with a stated publication history noting its previous residence in the Billy Jamieson/Niagara Falls Museum collection . . . . . 117

Fig. 6.19 Facebook post from a human remains collecting group; a member of admin cautions group members to keep up to date on legislation and “stay safe”. . . . . 118

Fig. 6.20 Facebook post from a human remains collecting group; the original poster describes a recent trip to the Paris Catacombs and group members comment on the disrespect inherent in vandalism and theft from such sites. . . . . 119

Fig. 6.21	Facebook post from a human remains collecting group; the original poster displays some uniquely decorated skulls but expresses concern that group members will find it disrespectful. . . . .	120
Fig. 8.1	In 2009, during the construction of the Weymouth Relief road (Dorset), Oxford Archaeology made the discovery of a rare mass grave of vikings on Ridgeway Hill (Loe et al. 2014b). The discovery was unexpected, having not been identified by earlier surveys of the area. Early communication between the developer (Skanska Civil Engineering on behalf of Dorset County Council) and archaeologists meant that there was sufficient flexibility in the programme and working methodology to manage the discovery in a way that did not have a considerable impact on the construction timetable and yet allowed archaeologists to excavate and record the burial in the required detail and to an acceptable standard. In this case, the area in which the grave lay was fenced off and the surrounding land was cut away and developed, preserving a small island which was also levelled and developed once the excavation was complete. Image courtesy of Oxford Archaeology <sup>©</sup> (2009). . . . .	161
Fig. 8.2	Damage to a Roman burial caused by piling. Image courtesy of Cotswold Archaeology <sup>©</sup> (2017). . . . .	166
Fig. 9.1	Inferior view of the lateral clavicle, showing the range of variation in the expression of anatomical features in ten archaeological clavicles compared to two plastic clavicles (top left and bottom right). Students who learned anatomy using plastic skeletons alone would find it difficult to appreciate what was normal variation. Photograph by Anwen Caffell <sup>©</sup> . . . . .	184
Fig. 9.2	Archaeological clavicles showing range of variation in size, shape, surface preservation, and amount of fragmentation. Real human remains may break in many different ways, and it is essential that students are able to identify and side bone fragments. Photograph by Anwen Caffell <sup>©</sup> . . . . .	185
Fig. 9.3	Three clavicles from three plastic skeletons, each of which is identical and complete. Students who study plastic material alone would not learn the different ways in which bone can fragment, or how to recognise parts of bone elements when they are damaged post mortem. Photograph by Anwen Caffell <sup>©</sup> . . . . .	186
Fig. 9.4	Cast of hand with septic arthritis produced by France Casting (2017). Casts of unusual pathological conditions can provide a valuable supplement to teaching with real human remains. Photograph by Tina Jakob <sup>©</sup> . . . . .	186

Fig. 9.5	Notice on human remains storage room in the Department of Archaeology, Durham University (left), reminding those using the collections to complete the sign out forms (right). Photograph by Tina Jakob <sup>©</sup> . . . . .	188
Fig. 9.6	Text included in course documents at Kennesaw State University (Georgia, USA) advising students not to share lecture slides or course materials online. Photograph courtesy of Bob Brown (2018) . . . . .	194
Fig. 9.7	Example of dedicated human remains laboratory with durable gently-padded bench toppers installed. These help to protect the bones and can be easily cleaned (Department of Archaeology, Durham University). Photograph by Tina Jakob <sup>©</sup> . . . . .	196
Fig. 9.8	Human ischium inappropriately, and incorrectly, marked as a human scapula. Note that marking on a joint surface is generally not advised as this is an area which frequently needs to be inspected for pathological changes. Photograph by Anwen Caffell <sup>©</sup> . . . . .	197
Fig. 9.9	Sign on door used to indicate that the room is used for human remains teaching (Department of Archaeology, Durham University). Photograph by Anwen Caffell <sup>©</sup> . . . . .	199
Fig. 9.10	Sign out system in place, with reminders that the sign out forms must be completed before material is removed from the laboratory. These documents provide a record allowing the location of materials to be tracked both currently and retrospectively (Department of Archaeology, Durham University). Photograph by Tina Jakob <sup>©</sup> . . . . .	200
Fig. 11.1	Robert Kennicott’s display in the ‘Objects of Wonder’ exhibition at the National Museum of Natural History, Smithsonian Institution (Washington D.C., USA). Photograph by Trish Biers (2017) . . . . .	243
Fig. 14.1	Responses from researchers using 3D imaging methods, when asked what materials they worked with . . . . .	319
Fig. 14.2	How collection managers/curators responded when asked: “If a researcher is permitted to collect data from your collection, who is the owner of that data?” . . . . .	321
Fig. 14.3	How researchers responded when asked: “If a researcher is permitted to collect data from your collection, who is the owner of that data?” . . . . .	322
Fig. 14.4	Physical reconstruction of M-02 from Gaomiao illustrating the glue and wooden sticks used to reconstruct the cranial fragments (Matsumura et al. 2017) . . . . .	324

Fig. 14.5	Soft tissue reconstruction of Tutankhamun featuring “girlish hips...clubbed foot...and pronounced overbite”, the reconstruction was created from CT scans (Lorenzi 2014). . . . .	326
Fig. 14.6	The prevalence of institutions with formal research agreements for 3D data and photographic data . . . . .	328
Fig. 14.7	Photograph illustrating the Inside Explorer Table allowing visitors to conduct a virtual autopsy of the Gebelein Man who was buried around 3500 BC in Upper Egypt. Photograph by Sian Smith (2018) . . . . .	330
Fig. 14.8	How collection managers/curators who request copies of data collected by researchers would use these data . . . . .	336
Fig. 21.1	Students visiting the site museum at Promptin Tai (Thailand). Photograph by Thanik Lertcharnrit . . . . .	472
Fig. 21.2	The ‘open-air’ site museum, Nyaung’gan, near Mandalay (Myanmar). Photograph by Kate Domett. . . . .	473
Fig. 21.3	The human remains that were placed in the stupa after extensive looting at the archaeological site of Phum Sophy (Cambodia) in 2007. Photograph by Kate Domett. . . . .	475
Fig. 27.1	Human remains from the Khmer Rouge regime in Kandal province. Photograph by Caroline Bennett. . . . .	573
Fig. 27.2	A communal stupa containing human remains from the Khmer Rouge and urns of unknown dead and those whose family cannot afford individual stupa. Photograph by Caroline Bennett . . . . .	575
Fig. 28.1	The Fallen Heroes Trust believed the area of black humus depicted in this image represented burials at the Butchers Site in Rusape. Photograph courtesy of Njabulo Chipangura . . . . .	594
Fig. 29.1	A well-preserved mummy from Palermo (Italy). Since the mummy is essentially intact and the soft tissue is in excellent condition, invasive sampling is not recommended in this case. Photograph by Dario Piombino-Mascali . . . . .	606
Fig. 29.2	A partially-mummified body from Vilnius (Lithuania). The soft tissue of this mummy is not well preserved, and areas where there is incomplete soft tissue are acceptable regions for tissue sampling, since there would be little further damage to the mummy. Photograph by Dario Piombino-Mascali . . . . .	607

# List of Tables

Table 11.1	Codes of Practice of the Human Tissue Authority (2017b), which were published in April 2017 and the last major review of the documents since 2009 . . . . .	250
Table 14.1	Aggregated responses of collection manager and researcher responses to the question: “If a researcher is permitted to collect data from your collection, who is the owner of that data?” . . . . .	322
Table 16.1	Advantages and disadvantages of porcine and human remains in taphonomy research (after Matuszewski et al 2019) . . . . .	371
Table 17.1	This table represents the human remains that were available for repatriation within the National Museum of Natural History (NMNH) and the National Museum of the American Indian (NMAI) during each of the specified calendar years and over the study period . . . . .	395
Table 28.1	Exhumations by the Equipo Argentino de Antropología Forense (1999) . . . . .	588
Table 28.2	Ethical dilemmas, issues, and recommendations regarding the treatment of human remains from conflicts in Zimbabwe . . . . .	598

# Chapter 1

## Introduction



**Kirsty Squires, David Errickson and Nicholas Márquez-Grant**

*The rapidity of technological and cultural change in current times is forcing us to confront a myriad of moral dilemmas over issues as wide ranging as...ethics*

Walker (2000, 1)

**Abstract** There are many complex challenges involved in the recovery/excavation, analysis, retention, and display of human remains, both in bioarchaeology and forensic anthropology. These challenges not only include the treatment of the dead, but also the opinions and feelings of the living. In the past, such considerations were not addressed until around the 1970s when professionals, particularly archaeologists, identified the need for a more structured approach to combat ethical concerns.

### 1.1 Ethics in Bioarchaeology and Forensic Anthropology

There are many complex challenges involved in the recovery/excavation, analysis, retention, and display of human remains, both in bioarchaeology and forensic anthropology. These challenges not only include the treatment of the dead, but also the opinions and feelings of the living. In the past, such considerations were not addressed until around the 1970s when professionals, particularly archaeologists, identified the need for a more structured approach to combat ethical concerns (Beaudry 2009). There are many definitions of what ethics are. Sellevold (2012) described ethics as a philosophy or a system of morals (what is right, what is wrong), but acknowledged that good and bad may vary between individuals and

---

K. Squires (✉)

Science Centre, Staffordshire University, Leek Road, Stoke-on-Trent ST4 2DF, UK

e-mail: [Kirsty.Squires@staffs.ac.uk](mailto:Kirsty.Squires@staffs.ac.uk)

D. Errickson · N. Márquez-Grant

Defence Academy of the United Kingdom, Cranfield Forensic Institute,  
Cranfield University, Shrivenham SN6 8LA, UK

© Springer Nature Switzerland AG 2019

K. Squires et al. (eds.), *Ethical Approaches to Human Remains*,

[https://doi.org/10.1007/978-3-030-32926-6\\_1](https://doi.org/10.1007/978-3-030-32926-6_1)



cultures. Further, the philosopher Kant stated that ethics is a universally desirable principal or law (Blau 2009). However, it may be difficult to set these universal principles if they are for professionals who currently practice ethically as they may not see the need for them (France 2012).

Although the dead cannot be hurt in the same way that the living can, there are many reasons why the body should be respected (Fossheim 2012). After all, the individual was once a living being, they had a status in society, they formed their own thoughts and opinions, and they made their own choices based upon their own ethical principles. Throughout history the practice of collecting and analysing skeletal remains has changed, and what was once common practice is now not. Indeed, as observed by Walker (2000, 9) “the practice of collecting human skeletal remains as war trophies and for religious purposes has deep historical roots”. The bodies collected by antiquarians varied in states of preservation, some of which date back to the seventeenth century, such as Sir Hans Sloane’s assemblage which included a number of human skeletons (Walker 2000), or that of Russian Tsar Peter the Great who published a Decree to obtain more human remains for his collection (Buzhilova 2011). These examples were a consequence of people’s curiosity for other cultures, due to medical curiosities, colonialism, financial gain, and for political reasons (see Márquez-Grant and Fibiger 2011). In the UK, this included illicit grave robbing, for example, the notorious Burke and Hare who exhumed bodies for profit in the nineteenth century (Evans 2010). These ‘practices’ saw the development of legislation which attempted to regulate the treatment of human remains, although in many countries graves and bodies still fell under the umbrella of ‘general heritage’ or ‘archaeological legislation’, with no specific mention to them in such documentation (see Márquez-Grant and Fibiger 2011; Márquez-Grant et al. 2016). In Great Britain, these included the Murder Act (1752), the Anatomy Act (1832, 1984), and the Burial Act (1857). These Acts laid out provisions and punishments should these Acts be broken, for example the death penalty.

The Vermillion Accord on Human Remains was adopted at the World Archaeological Congress (WAC) in 1989 and signified an important step towards the correct treatment of human remains. This stipulated that the dead and their associated community, relatives, and guardians should be respected (WAC 1989). In addition, a year later, the Native American Graves Protection and Repatriation Act (NAGPRA 1990) became effective, establishing procedures in the discovery and recovery of Native American cultural items including human remains on particular lands. Descendants were thus granted greater input regarding the treatment of the dead. The publication of the International Council of Museums (ICOM) Code of Ethics in 2004 was highly significant as this code set the minimum standards that the public and professionals should expect of a museum service, while safeguarding invaluable heritage (Lewis 2004; ICOM 2017).

Rapidly changing views on human remains and new legislation meant that Indigenous groups were increasingly asking museums for the return of their ancestor’s human remains (Payne 2012) and, perhaps, using repatriation as a ‘kind of restitution for past wrongs’. As a result, in 2000, a joint declaration between the UK and Australia was established to increase efforts in the repatriation of human remains to Indigenous communities in Australia, resulting in the Guidance for the Care of Human Remains in Museums (DCMS 2005). Ethics committees were also

established in museums, universities, and other institutions that held human remains in some countries (see Márquez-Grant and Fibiger 2011). Consequently, several repatriation claims were successful, including those of Saartjie ‘Sarah’ Baartman (1789–1815) whose body was displayed until the 1970s in the Musée de L’Homme in Paris (France) and was finally buried in South Africa in 2002 (Bredenkamp 2006); the ‘last’ Tasmanian female, Truganini, whose body was retained due to scientific interest when she died in 1876 and it was not until 1976 that her body was repatriated, cremated, and her ashes scattered in a specific place which she had requested prior to her death (Fforde 2004); the nineteenth century ‘Bushman’ displayed in a museum in Spain until it was returned to Botswana in 2000 (Davies 2003); and the body of Julia Pastrana was returned from Norway to Mexico in 2013 (Márquez-Grant 2017). These repatriation claims may be substantiated by genetic, cultural, religious, and geographic links, amongst other factors, between the claimants and the deceased (Lohman and Goodnow 2006; Jenkins 2011).

As noted throughout this book, ethical considerations are not only relevant to human tissue, including skeletonised individuals, fragmented bones or human bones as part of artefacts, but all individuals whether dead or living. Therefore, it is not only bioarchaeology that should be considered, but also the related discipline of forensic anthropology in that investigations, such as age assessments, are undertaken on the living or where the relatives of the deceased are still alive. Investigations into human rights and political violations have derived from violence and warfare (Fondebrider 2012). Conflicts in wars have seen thousands of people buried in concentration camps (González-Ruibal et al. 2015), while others have resulted in the public display of human remains (Walker 2000). Some of these conflicts also saw the unnecessary physical and mental torture of the living. Similarly, we must also remember that the living may be tortured in other ways, for instance, if their relatives and/or friends have been killed they are likely to experience mental anguish, which may be compounded by forensic investigations.

The past 20 years in particular has seen a number of events that have increased public awareness and concern surrounding the treatment of human remains (Payne 2012). For example, in the late 1980s and early 1990s, Alder Hey Children’s Hospital in Liverpool (UK) removed, retained, and disposed of human tissue without the consent of the deceased (before they died) or their relatives (Joy 2014). Such scandals were seen elsewhere in the UK which, in part, led to the creation of the Human Tissue Acts (2004, 2006) and the Human Tissue Authority (in 2005) to ensure the appropriate regulation of human bodies, tissues, and organs. Since the implementation of these Acts and Authority, other ethical conversations have arisen. These include discussions on the excavation, storage, and display of human remains, and sharing recorded data (see Biers, this volume; Caffell and Jakob, this volume). For example, the case of displaying Charles Byrne at the Hunterian Museum in London (UK) has been controversial as we know that his last wishes were to be buried at sea after death (Doyal and Muinzer 2011). In 2008, there was also a debate regarding the display of unwrapped Egyptian mummies at Manchester Museum (UK). The institution was required to cover all unwrapped Egyptian mummies in their exhibitions, but these were later uncovered due to public demand (Payne 2012). Likewise, the dissemination of digital data has been debated on the Digital Osteology mailing list (see Errickson and Thompson, this volume). More recently, archaeological work to

remove 45,000 skeletons from St James's Gardens in London has commenced as part of the High-Speed Rail 2 (HS2) scheme; the UK's biggest ever archaeological project (Addley 2018). This burial ground was in use from 1790 to 1853 and notable people, such as Bill Richmond and Captain Matthew Flinders were buried here. The contractor and archaeologists are working with the Church of England to ensure the deceased are treated with "dignity, respect and care", though this does not alleviate the concerns of the public who do not believe the dead should be disturbed (BBC 2017). In response to the St James's excavation, members of the public protested against archaeological excavation and held a memorial service for the deceased (BBC 2017). These examples demonstrate that we must not only consider academics, professionals, the families of the dead, and the dead themselves, but also each and every person with an interest in human remains and their associated narrative.

Fossheim (2012, 9) describes human remains as a "non-renewable source of knowledge" that could be destroyed through destructive techniques and, in turn, threaten our "access to shared knowledge". With the rapid development of technology, it means we must consider the future scientific community. However, as our attitudes change, there is increasing public awareness of the educational value of human remains as well as a developing understanding, by researchers, of the needs of kin groups. For example, analysis of human remains from Lake Mungo (South Australia) has been blocked, primarily as a result of opposition to the research from an affiliated culture. Yet consideration of future generations has been maintained, and both the archaeologists and local peoples have preserved the skeletons should attitudes, beliefs, or opinions change in years to come (Payne 2012).

Despite the inception of several anthropology and archaeology organisations in the early twentieth century, such as the American Association of Physical Anthropologists (AAPA) in 1930, the American Association of Forensic Science in 1948, and the Society for American Archaeology (SAA) in 1934, ethics were not given the attention they deserved until relatively recently. Over the past 40 years these disciplines have universally acknowledged that ethics should be at the forefront of all work that involves human remains and, as a result, these organisations have incorporated ethical working practices into their individual codes of practice. In part, this can be attributed to the formation of key organisations, such as the Australian Archaeological Association in 1973, the Society of Professional Archaeologists (USA) in 1976, the World Archaeological Congress in 1986, the Chartered Institute for Archaeologists (UK) in 1982, and the British Association for Biological Anthropology and Osteoarchaeology (BABAO) in 1998. The formation of these organisations has had a profound impact on the way in which archaeologists and anthropologists conduct their work. Many of these organisations have published best practice guidelines or have, in some way, influenced governmental guidelines on the curation of human remains (e.g. in the UK, DCMS 2005; BABAO 2010a, 2019a; see also ICRC 2017). Similarly, many of these organisations (e.g. AAPA 2003; BABAO 2010b, 2019b; see also WAC 2018) have developed codes of ethics that its members are expected to follow. Greater awareness of ethical issues in archaeology and anthropology have consequently led to changes in legislation, particularly with regards to the repatriation of human remains belonging to Indigenous groups (Fforde 2004, 2014; see individual chapters in Márquez-Grant and Fibiger 2011).

In 2005, Larsen and Walker addressed bioarchaeology's responsibility and ethical standpoint on the study of ancient human remains; a question that is now all too common. Ethical considerations concerning the study, curation, display, and repatriation of human remains are the primary areas in which ethics have been addressed by bioarchaeologists, forensic anthropologists, practitioners, and museum curators. Some of these topics were discussed in Turner's (2005) edited volume, 'Biological Anthropology and Ethics', and since this publication, a number of standalone manuscripts and chapters have been produced, though these remain scattered across disciplines and journals and are, in some cases, outdated. An article by Turner et al. (2018) has recently explored the history of ethics (and ethical codes) in biological anthropology alongside current issues within this subject area, such as consent, transparency of research and associated data, and the principle of justice for the living and dead, all of which will be explored throughout the present volume. This article is particularly powerful in that it highlights the lack of high-level engagement and acknowledgement of ethics in biological anthropological research and publications (Turner et al. 2018). The discussions raised by Turner et al. (2018) are pertinent to the current climate in archaeology and anthropology, though given that this is only an article, the authors could not explore peripheral ethical concerns. More recent volumes or standalone chapters have become increasingly focused on specific research areas or issues, such as repatriation and the curation of human remains (Jenkins 2011; Giesen 2013), archaeology (Zimmerman et al. 2003; Gnecco and Lippert 2015), funerary archaeology (Parker Pearson et al. 2011; Sayer 2012), and forensic anthropology (France 2012; Passalacqua and Pilloud 2018). However, there is no comprehensive volume that brings together each of these topics, alongside emerging matters, such as digital ethics, the use of human remains on social media, the trade of human remains, and the views of Indigenous communities that are affected by those that work with human remains.

Over recent years, increasing numbers of infrastructure projects (such as the creation of motorways or rail networks), the recovery and identification of victims of genocide and war from mass graves, the significant rise in destructive sampling and associated analyses (e.g. DNA and isotope analyses), and the use of digital resources (i.e. 3D imaging, storing metadata, and social media) have raised further questions about the ethical treatment of human remains. However, these challenges are rarely tackled in the literature (APABE 2013; Williams and Atkin 2015; Márquez-Grant and Erickson 2017; Niven and Richards 2017). With this in mind, the authors felt an up to date, consolidated volume on current issues and challenges associated with human remains was both timely and necessary. This book offers a current perspective on the ethical challenges faced by bioarchaeologists, forensic anthropologists, anatomists, museum curators, commercial archaeologists and academics, and will explore areas that are rarely the focus of published works. Key ethical themes that are addressed throughout this volume include an overview of ethical concerns in bioarchaeology and forensic anthropology, the excavation, curation and display of human remains, repatriation, and new imaging techniques; alongside several invaluable case studies. This book will also address current problems faced by specialists and practitioners, such as the ethics of destructive

sampling, digital technology, social media, the relatives of the deceased, the trade of human remains, and the use of human taphonomic facilities. Furthermore, the book utilises case studies written by experts within the discipline who are working firsthand with communities and families associated with the human remains they study. Moreover, we hope this volume will also give Indigenous communities a voice on the subject, as all too often we only hear of ethical controversies from the perspective of scientists that work with human remains.

The main objectives of this volume are to:

- Raise awareness of current ethical problems faced by archaeologists and anthropologists that work with human remains in the field, laboratory, classroom, and museum;
- Explore ethical challenges experienced by bioarchaeologists, forensic anthropologists, archaeological practitioners, anatomists, museum curators, philosophers, and Indigenous groups that are involved in repatriation cases around the world; information that is relevant both to academics and practitioners;
- To understand how practitioners working in different contexts deal with ethical issues associated with human remains;
- Establish how ethical dilemmas can be overcome through recommendations aimed at practitioners, academics, as well as organisations and governments, and will offer considerations for their future implementation.

## **1.2 Current State of Play of Ethics in Bioarchaeology and Forensic Anthropology**

As highlighted by Turner et al. (2018), despite the advances in ethical guidelines and principles, there is a lack of engagement with ethical issues at a higher level, particularly their consideration in publications. This is further demonstrated by a number of recently publicised cases that highlight the inadequate implementation of ethical guidelines. To add some context to the volume, these examples will be explored in the following section.

One of the greatest ethical controversies in archaeology and anthropology is ownership of the dead. In a number of countries, when dealing with recently deceased individuals in forensic cases, the coroner will take ownership of the body before it is released to the family for funerary rites (Aronson 2016; Lunn 2017). However, there can be disputes when the coroner has ordered a post mortem when either the deceased and/or their descendants hold beliefs that oppose this practice (Boglioli and Taff 1990; Burton 2012). Both Jewish and Muslim communities are against post mortems as they believe that the process desecrates the body (see AlQahtani and Adserias-Garriga, this volume; Squires et al., this volume for further details). It is also held that, if a post mortem is carried out without their consent, it breaches their human rights (Human Rights Act 1998, Article 9; Gallagher 2015). In 2015, Jewish and Muslim communities had a significant legal victory that led to

the creation of a series of principles that coroners must follow where families have expressed religious objections to post mortems (Gallagher 2015). Instead, CT or MRI scans and/or blood tests are to be taken to establish the cause of death (Gallagher 2015). This review is important as it gives the family and, indeed, the deceased a voice in the treatment of the body after death. However, there are problems with the accuracy of some scanning methods, for example some parts of the body are difficult to examine (i.e. superior region of the spinal cord) and several natural causes of death, which can be identified during a post mortem, cannot be established using this technique (Bolliger and Thali 2015). In such cases invasive autopsy is necessary.

In contrast, coroners cannot claim such ownership over archaeological remains. Gatekeepers based in universities and museums are responsible for granting access to human skeletal remains (including the types of analyses and sampling that can be carried out) from archaeological sites. The implementation of ethical guidelines by such institutions, and other relevant organisations (see Bonney et al., this volume; Caffell and Jakob, this volume) aim to overcome problems associated with consent and permission to study archaeological human remains. However, this becomes more complex when dealing with individuals that belong to Indigenous groups or those that passed away in periods of conflict, where there are living relatives, or where the wishes of the deceased are known. Even though the majority of institutions practice within the law, ethical considerations are often overlooked.

In 2016, human remains from the Chaco Canyon (New Mexico, USA) site were subjected to analyses without the consent of their surviving descendants. Human remains from this site have been held in the American Museum of Natural History (New York City, USA) since the late 1890s. The museum granted researchers permission to carry out research (including destructive sampling for DNA analysis) on these remains without consulting descendants of the deceased (Balter 2017). At the time, it was believed that the remains did not belong to any living group as the museum had reached out to numerous southwestern native groups in the late 1990s to establish which group the remains belonged to, though none came forward (Balter 2017). Whilst this may have been the case, the museum would not release documentation that contained details of what it allowed researchers to examine and analyse when initially requested by interested parties. One of the main issues here is that, even though the remains may have been deemed as “culturally unidentifiable”, these remains should not have been subjected to such analyses as they were known to belong to a native group(s), many of which do not agree with destructive sampling and associated analyses (i.e. DNA and isotope analyses), as exhibited in the current Pueblo Bonito case (Balter 2017).

The problems that arise from the lack of communication between researchers and native groups has also been observed in Australia. In November 2006, the Tasmanian Aboriginal Centre demanded the repatriation of 17 Indigenous Tasmanians held by the Natural History Museum in London (UK). The museum eventually returned these human remains but, before they did, they conducted molecular analysis and generated data using digital imaging (Turnbull 2007). While this could be of value to future generations that wished to study these remains,