

## COMMENTARY

# Ethical considerations and publishing in human bioarcheology

Kirsty Squires<sup>1</sup>  | Charlotte A. Roberts<sup>2</sup>  | Nicholas Márquez-Grant<sup>3</sup> 

<sup>1</sup>School of Security, Justice and Sustainability, Staffordshire University, Stoke-on-Trent, UK

<sup>2</sup>Department of Archaeology, Durham University, Lower Mountjoy, Durham, UK

<sup>3</sup>Cranfield Forensic Institute, Cranfield University, Bedford, UK

## Correspondence

Kirsty Squires, School of Security, Justice and Sustainability, Staffordshire University, Leek Road, Stoke-on-Trent, ST4 2DF, UK.

Email: kirsty.squires@staffs.ac.uk

## 1 | INTRODUCTION

As bioarcheologists and forensic anthropologists, we are writing to highlight the apparent lack of ethical consideration, or mention of ethics, in published papers, especially when publishing on archeological human remains. In many situations, data deriving from excavated human remains provide the deep time perspective relevant to populations today (e.g., Binder et al., 2014). However, bearing in mind current ethical debates around the excavation, analysis, and curation of human remains (e.g., Squires, Errickson, & Márquez-Grant, 2019), and any in the future, we do need to address the ethics surrounding our research and its publication as we go forward.

Ethical challenges within biological anthropology, including bioarcheology, are becoming much more widely discussed. This is exemplified by increasing numbers of publications (e.g., Caffell & Jakob, 2019; Fletcher et al., 2014; Giesen, 2013; Makarewicz et al., 2017; Passalacqua & Pilloud, 2018; Roberts, 2013; Squires, Errickson, & Márquez-Grant, 2019; Turner et al., 2018), webinars and conference sessions,<sup>1</sup> and guidance documents (e.g., BABAO, 2019a, 2019b) relating to bioarcheology education and training, and research on archeological human remains in university, museum, and commercial contexts. These discussions are pertinent to innumerable cases including, but not limited to, that of Kennewick Man (Owsley & Jantz, 2014) and Sarah Baartman (Young, 2017). In addition, there have been considerations of ethical issues related to the sale of human remains (Huffer & Charlton, 2019), commercial/contract archeology (Loe & Clough, 2019), and museum collections (Cassman et al., 2006; Department for Digital, Culture, Media, and Sport, 2005). This increased interest also stems from the rise in destructive and invasive sampling of archeological human and faunal remains to provide more nuanced interpretations of the past (Pálsdóttir et al., 2019) and for the purpose

of aDNA, isotope, histomorphological, and other analyses (Advisory Panel on the Archeology of Burials in England, 2013). This has been further intensified by poorly informed studies failing to incorporate basic osteological data (Bhattacharya et al., 2018). If publications do not include transparent consideration of ethical issues when undertaking our research, the media and the wider public may, quite rightly, feel misinformed about our research processes. This can lead to unwelcome and sensationalized “stories” that are not underpinned by robust ethical stances (Snoddy et al., 2020). This situation also includes titles of academic papers, where authors may be aiming for a “catchy” title and media attention, but which may be deemed inappropriate, unethical, and unprofessional (Passalacqua et al., 2014). This commentary ultimately suggests guidance for future publication in bioarcheology.

## 2 | GUIDANCE FOR SUBMISSION OF PAPERS

As a starting point, we considered three journals that publish bioarcheological research to explore whether ethics statements were included in papers focusing on archeological human remains: the *American Journal of Physical Anthropology* (AJPA; Wiley, 2021), *International Journal of Osteoarchaeology* (IJO; Wiley, 2020), and the *International Journal of Paleopathology* (IJPP; Elsevier, 2017, 2021). The submission guidelines of each of these journals stipulate that authors must include an ethical statement, *but only where studies involve living humans or animals*. If ethics statements are included in published papers, they usually relate primarily to human and non-human experimental or observational studies, and living human participants recruited for experimental work (e.g., bone properties and locomotor

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2022 The Authors. American Journal of Biological Anthropology published by Wiley Periodicals LLC.

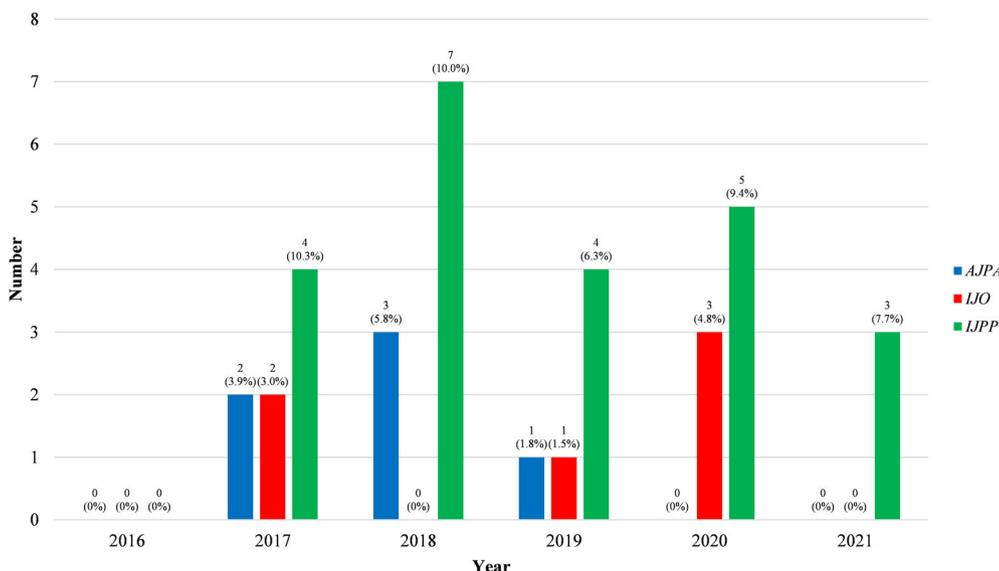
strategies in athletes), or for completing questionnaires. *AJPA*, *IJO*, and *IJPP* are also members of COPE (Committee on Publication Ethics), though this committee does not encompass ethics related to bioarcheology. Therefore, currently, there is no consideration of archeological human remains in the aforementioned author guidelines, with the exception of Wiley (2020) which covers the ethical implications of publishing images of human remains. Wiley (2020) states that editors should be considering cultural sensitivities in submitted papers. However, in our view all those involved in the review process (editors, associate editors, and reviewers) should address potential ethical issues related to the research during the peer review process.

Many authors publishing in your journal are currently not required to provide an ethics statement because their research is not concerned with living humans or other animals. However, we believe that all studies involving archeological human remains (regardless of chronological age, geographical location, or the nature of the remains—skeletons, mummies, cremated bone, bone/tooth fragments) should have been reviewed by an ethics committee prior to the start of the research, and that ethical considerations are applied throughout the project.<sup>2</sup> This may be required/undertaken at the author's host institution, such as a university or museum, or it may be requested by a funding body in a grant application. The value of including ethics statements in papers has been raised in the past (Squires, Booth, & Roberts, 2019; Squires & García-Mancuso, 2021; Turner et al., 2018), though little has changed in terms of mandatory ethics statements within the major biological anthropology journals. This is despite the fact that some journals are linked with associations that have set up ethics committees with the aim of embedding ethics into research and associated outputs. It should be noted that since the initial submission of this commentary in July 2021, the *AJPA* now has a section on ethical considerations of research focused on human remains, specifically linked to descendent communities where author statements need to include, where possible, permission for study (Wiley, 2021). However, we repeat that we believe this should be extended to include the use of all human remains globally, regardless of time or place. Further,

research should be subject to ethical review throughout the research process, including ultimate publication.

### 3 | A REVIEW OF PAPERS IN *AJPA*, *IJO*, AND *IJPP*

To support the previous dialogue, we reviewed all research articles related to human bioarcheology published in the three key bioarcheological journals over the past five years (January 2016–June 2021). We aimed to identify articles where the authors acknowledged ethical approval (by home institution/curating body) for their study. Of the 939 research articles examined in this review, only 35 (3.7%) papers mentioned ethics. Very few articles included statements that explicitly stipulated ethical approval was granted and/or ethical guidelines were followed (Figure 1). Nevertheless, in some cases, authors had acknowledged that work was undertaken with dignity and respect, although it could be argued what this actually means. When considering the total papers reviewed for each journal, the *AJPA* ( $n = 289$ ) and *IJO* ( $n = 345$ ) both contained six (2.0% and 1.7%, respectively) papers noting that ethical approval had been obtained, whereas the *IJPP* ( $n = 305$ ) contained 23 (7.5%) articles that mentioned ethics, with 12 (3.9%) directly citing ethical approval. As there is an increasing emphasis on ethics within biological anthropological research, we expected to find a much higher number of papers with ethics statements and an increasing trend in mentions of ethics in these studies over recent years. As a general observation, where statements are provided, these seem to be an ad hoc occurrence, and have likely been included at the discretion of the author(s). Since there are also no standard guidelines for presenting ethics statements within papers (or where), if they exist these may be found within Materials and Methods (sometimes with separate subheadings: “ethics statement,” “ethical considerations,” or “ethical note”), acknowledgements, or separately at the end of the paper. If they exist, ethics statements typically note that ethical approval for a study was



**FIGURE 1** Number of papers noting ethical approval for studies employing archeological human remains, comparing totals for each year from January 2016 to June 2021, in the *American Journal of Physical Anthropology* (*AJPA*), *International Journal of Osteoarchaeology* (*IJO*), and *International Journal of Paleopathology* (*IJPP*)

granted by the researcher's home institution and/or the curating body responsible for the human remains. Occasionally, papers indicate that ethical guidelines were followed and the remains were analyzed with dignity and respect, which is entirely appropriate.

Some papers did refer to ethics even though approval was not required in their institution and/or was not part of their national or regional legislation/recommendations. In fact, many countries still do not have specific human remains legislation/ethical guidance, and even institutions within the same country can vary in the practices used (Márquez-Grant et al., 2016; Márquez-Grant & Fibiger, 2011). This results in inconsistencies within global biological anthropology. Of particular concern are studies of named individuals, or documented collections of late 19th/early 20th century date, with no mention of ethical approval and/or consent. Moreover, in other cases authors state that ethical approval was not necessary as the remains were of greater antiquity and non-destructive methods were used, though this should not be an excuse to exclude ethical considerations.

#### 4 | RECOMMENDATIONS

We argue that ethical approval for research on archeological human remains should apply to *all* studies. Moreover, this approval and any other considerations should be stated in the published paper. Editors and reviewers should ensure that these statements are included as best practice and for the benefit of our discipline. The inclusion of ethical statements demonstrates that ethical concerns and the methods selected for the study have been carefully considered by the study's author(s) and, if possible, by an official ethics committee.

We therefore call upon journals publishing bioarcheological research to implement more stringent and detailed ethically focused guidelines for authors, particularly for research on archeological human remains, although not exclusively. We suggest the inclusion of an "ethics statement" section in papers (what ethical approval was granted, and/or what ethics and practice guidance was used). This will ensure ethical integrity and transparency. Mandatory inclusion will also make researchers more aware of the ethical implications of their work, and that it will be reviewed as part of the publication process. It may also trigger research institutions to create ethics committees to evaluate research conducted on human remains they curate, but also bioarcheological research carried out by staff and students anywhere in the world.

As we already know, archeological and historical human remains are not only a resource for teaching, research publication, and ultimately career development, but they represent once living individuals that deserve to be treated with respect and dignity. As such, we provide a number of recommendations below.

#### 5 | AN ETHICS STATEMENT

We suggest that ethics statements should be included in all papers that involve the analysis of archeological human remains. In some

cases, institutions do not have an ethics committee within their archeology, anthropology, or other relevant departments, or studies may have commenced prior to the need for institutional ethical approval. To avoid disadvantaging researchers, the following questions might be used as guidance when undertaking research, regardless of career stage, for the purpose of publication:

- Has your research project been approved by a research/ethics committee/panel in your institution/other institutions? If so, please name the institution(s) and, where applicable, provide the ethical approval reference number/code.
- If you did not need formal approval, explain why (e.g., no ethics committee in place at your home institution or museum where the remains are curated).
- Did approval take into consideration any ethical implications arising from the research (e.g., the remains of a historical person, Indigenous population, cultural and religious sensitivities, living descendants)?
- If your study involved destructive sampling, justify why this was necessary in relation to the questions being addressed or the hypotheses to be tested.
- What steps did you take to limit damage/maintain the integrity of the remains?
- Did you follow any good practice guidance (e.g., national or international codes)?
- In the case of more recent remains, was anonymity retained?
- Are all the images you have used justifiable and has consent been given to include them in publications by curating institutions and living descendants, where appropriate?

These questions are a base on which to build an effective process for assuring the editorial process and the wider public that bioarcheological research has been conducted in an ethically responsible manner. They are important areas to focus on and will help move our discipline in the right direction as the remains we study continue to teach us about ourselves, where we have come from, and what the future might hold. Ethical statements in all papers concerned with human remains will provide good practice for generations of scientists to come and facilitate the appropriate dissemination of data to wide audiences beyond academia for the benefit of science and society. It is the duty of all who facilitate the publishing process, and along with authors, their institutions and any funding bodies that may be financing research, to ensure mandatory ethical statements are provided. Unquestionably, as different ethical challenges arise in future research, these questions will also be further refined. It must be stressed that the introduction of author submission requirements will take time and should not be rushed. The implementation must be gradual if the process is to be permanent, and inclusive and fair to *all* researchers, regardless of their geographical location or career stage.

#### CONFLICT OF INTEREST

The authors declare no conflict of interest.

## AUTHOR CONTRIBUTIONS

**Kirsty Squires:** Conceptualization (lead); investigation (equal); methodology (equal); project administration (equal); writing – original draft (lead); writing – review and editing (equal). **Charlotte Ann Roberts:** Investigation (equal); methodology (equal); writing – original draft (equal); writing – review and editing (equal). **Nicholas Marquez-Grant:** Investigation (equal); methodology (equal); writing – original draft (equal); writing – review and editing (equal).

## DATA AVAILABILITY STATEMENT

The full dataset used in this study is available from the corresponding author upon reasonable request.

## ORCID

Kirsty Squires  <https://orcid.org/0000-0002-0565-9491>

Charlotte A. Roberts  <https://orcid.org/0000-0002-2259-807X>

Nicholas Márquez-Grant  <https://orcid.org/0000-0002-5812-6189>

## ENDNOTES

<sup>1</sup> Recent examples include: “Skeletons in the anthropological closet: Museum collections and the demand for principles of accountability,” Wenner-Gren webinar 5/20 [virtual] 2021; “The temptation to sample: an ethical debate on sampling of archaeological human and animal remains” at the Bioarchaeology Early Career Conference, University of Glasgow [virtual] 2021; “AnthroEthics,” BioantTalks [virtual] 2021; “Ethics in paleopathology” at the 46th Annual North American Meeting of the Paleopathology Association, Cleveland (Ohio) 2019; “Dead images. Facing the history, ethics and politics of European skull collections,” University of Edinburgh 2018; “The ethics of working with human remains: Development and refinement of ethical discourse, principles, justification, and practice for anthropological scholarship involving human remains” at the American Anthropological Association 116th Annual Meeting, Washington DC 2017; “Collaborative curation of North American remains” Institute of Museum and Library Services. Field Museum, Chicago (Illinois) 2017.

<sup>2</sup> Ethics committees/boards may be departmental/university levels, or both. University level committees may be comprised of bioethical experts, philosophers, policy makers, lawyers, and scientists. Each project should be approved by an ethics board first. In the case of small curating institutions, such as museums and commercial archeological contractors, an advisory board or external partner institutions may aid ethical reviews of projects. There are undoubtedly cases whereby specific information about archeological interventions involving human remains or analysis is not available (e.g., where ethical approval was not required when data collection took place). A solution to this problem in the form of a universal ethics statement is thus proposed at the end of this commentary.

## REFERENCES

- Advisory Panel on the Archaeology of Burials in England. (2013). *Science and the Dead: A Guideline for the Destructive Sampling of Archaeological Human Remains for Scientific Analysis*. Retrieved from [https://www.archaeologyuk.org/apabe/pdf/Science\\_and\\_the\\_Dead.pdf](https://www.archaeologyuk.org/apabe/pdf/Science_and_the_Dead.pdf)
- Bhattacharya, S., Li, J., Sockell, A., Kan, M. J., Bava, F. A., Chen, S.-C., Ávila-Arcos, M. C., Ji, X., Smith, E., Asadi, N. B., Lichman, R. S., Lam, H. Y. K., Bustamante, C. D., Butte, A. J., & Nolan, G. P. (2018). Whole-genome sequencing of Atacama skeleton shows novel mutations linked with dysplasia. *Genome Research*, 28, 423–431. <https://doi.org/10.1101/gr.223693.117>
- Binder, M., Roberts, C., Spencer, N., Antoine, D., & Cartwright, C. (2014). On the antiquity of cancer: Evidence for metastatic carcinoma in a Young man from ancient Nubia (c. 1200BC). *PLoS One*, 9, e90924.
- British Association of Biological Anthropology and Osteoarchaeology (BABAO). (2019a). *Codes of Ethics and Practice*. Retrieved from <https://www.babao.org.uk/assets/Uploads/BABAO-Code-of-Ethics-2019.pdf>
- British Association of Biological Anthropology and Osteoarchaeology (BABAO). (2019b). *BABAO Recommendations on the Ethical Issues Surrounding 2D and 3D Digital Imaging of Human Remains*. Retrieved from <https://www.babao.org.uk/assets/Uploads/BABAO-Digital-imaging-code-2019.pdf>
- Caffell, A., & Jakob, T. (2019). ‘The dead teach the living’: Ethical considerations concerning the Management of Collections of human remains in universities. In K. Squires, D. Errickson, & N. Márquez-Grant (Eds.), *Ethical approaches to human remains: A global challenge in bioarchaeology and forensic anthropology* (pp. 179–209). Springer. [https://doi.org/10.1007/978-3-030-32926-6\\_9](https://doi.org/10.1007/978-3-030-32926-6_9)
- Cassman, V., Odegaard, N., & Powell, J. (Eds.). (2006). *Human remains: Guide for museums and academic institutions*. AltaMira Press.
- Department for Digital, Culture, Media and Sport. (2005). *Guidance for the Care of Human Remains in museums*. Author.
- Elsevier. (2017). *Ethical Guidelines for Journal Publication*. Retrieved from <https://www.elsevier.com/publishingethics>
- Elsevier. (2021). *International Journal of Paleopathology: Author Information Pack*. Retrieved from [https://www.elsevier.com/wps/find/journaldescription.cws\\_home/723943?generatepdf=true](https://www.elsevier.com/wps/find/journaldescription.cws_home/723943?generatepdf=true)
- Fletcher, A., Antoine, D., & Hill, J. D. (Eds.). (2014). *Regarding the dead: Human remains in the British museum*. The British Museum.
- Giesen, M. (Ed.). (2013). *Curating human remains. Caring for the dead in the UK*. The Boydell Press.
- Huffer, D., & Charlton, N. (2019). Serious enquiries only, please: Ethical issues raised by the online human remains trade. In K. Squires, D. Errickson, & N. Márquez-Grant (Eds.), *Ethical approaches to human remains: A global challenge in bioarchaeology and forensic anthropology* (pp. 95–129). Springer. [https://doi.org/10.1007/978-3-030-32926-6\\_6](https://doi.org/10.1007/978-3-030-32926-6_6)
- Loe, L., & Clough, S. (2019). Ethical considerations in the excavation of burials in the excavation of burials in England: A perspective from developer led archaeology. In K. Squires, D. Errickson, & N. Márquez-Grant (Eds.), *Ethical approaches to human remains: A global challenge in bioarchaeology and forensic anthropology* (pp. 157–177). Springer. [https://doi.org/10.1007/978-3-030-32926-6\\_8](https://doi.org/10.1007/978-3-030-32926-6_8)
- Makarewicz, C., Marom, N., & Bar-Oz, G. (2017). Ensure equal access to ancient DNA. *Nature*, 548, 158. <https://doi.org/10.1038/548158a>
- Márquez-Grant, N., & Fibiger, L. (Eds.). (2011). *The Routledge handbook of human remains and legislation. An international guide to laws and practice in the excavation and treatment of archaeological human remains*. Routledge.
- Márquez-Grant, N., Webster, H., Truesdell, J., & Fibiger, L. (2016). Physical anthropology and Osteoarchaeology in Europe: History, current trends and challenges. *International Journal of Osteoarchaeology*, 26, 1078–1088. <https://doi.org/10.1002/oa.2520>
- Owsley, D. W., & Jantz, R. L. (Eds.). (2014). *Kennewick man: The scientific investigation of an ancient American skeleton*. Texas A&M University Press.
- Pálsdóttir, A. H., Bläuer, A., Rannamäe, E., Boessenkool, S., & Hallsson, J. H. (2019). Not a limitless resource: Ethics and guidelines for destructive sampling of Archaeofaunal remains. *Royal Society Open Science*, 6, 191059. <https://doi.org/10.1098/rsos.191059>
- Passalacqua, N. V., & Pilloud, M. A. (2018). *Ethics and professionalism in forensic anthropology*. Academic Press.
- Passalacqua, N. V., Pilloud, M. A., & Gruters, G. A. (2014). Professionalism: Ethics and scholarship in forensic science. *Journal of Forensic Sciences*, 59, 573–575. <https://doi.org/10.1111/1556-4029.12433>

- Roberts, C. A. (2013). Archaeological human remains and laboratories: Attaining acceptable standards for curating skeletal remains for teaching and research. In M. Giesen (Ed.), *Curating Human Remains* (pp. 123–134). The Boydell Press.
- Snoddy, A. M. E., Beaumont, J., Buckley, H. R., Colombo, A., Halcrow, S. E., Kinaston, R. L., & Vlok, M. (2020). Sensationalism and speaking to the public: Scientific rigour and interdisciplinary collaborations in Palaeopathology. *International Journal of Paleopathology*, 28, 88–91. <https://doi.org/10.1016/j.ijpp.2020.01.003>
- Squires, K., Booth, T., & Roberts, C. A. (2019). The ethics of sampling skeletal remains for destructive analyses. In K. Squires, D. Erickson, & N. Márquez-Grant (Eds.), *Ethical approaches to human remains: A global challenge in bioarcheology and forensic anthropology* (pp. 265–297). Springer. [https://doi.org/10.1007/978-3-030-32926-6\\_12](https://doi.org/10.1007/978-3-030-32926-6_12)
- Squires, K., Erickson, D., & Márquez-Grant, N. (Eds.). (2019). *Ethical approaches to human remains: A global challenge in bioarcheology and forensic anthropology*. Springer. <https://doi.org/10.1007/978-3-030-32926-6>
- Squires, K., & García-Mancuso, R. (2021). Desafíos Éticos Asociados al Estudio y Tratamiento de Restos Humanos en las Ciencias Antropológicas en el Siglo XXI. *Revista Argentina de Antropología Biológica*, 23, 1–22. <https://doi.org/10.24215/1853687e034>
- Turner, T. R., Wagner, J. K., & Cabana, G. S. (2018). Ethics in biological anthropology. *American Journal of Physical Anthropology*, 165, 939–951. <https://doi.org/10.1002/ajpa.23367>
- Wiley. (2020). *Best Practice Guidelines on Research Integrity and Publishing Ethics*. Retrieved from <https://authorservices.wiley.com/ethics-guidelines/index.html>
- Wiley. (2021). *American Journal of Physical Anthropology: Author Guidelines*. Retrieved from [https://onlinelibrary.wiley.com/page/journal/10968644/homepage/forauthors.html#\\_5\\_EDITORIAL\\_POLICIES](https://onlinelibrary.wiley.com/page/journal/10968644/homepage/forauthors.html#_5_EDITORIAL_POLICIES)
- Young, H. B. (2017). *Illegible will: Coercive spectacles of labor in South Africa and the diaspora*. Duke University Press.

**How to cite this article:** Squires, K., Roberts, C. A., & Márquez-Grant, N. (2022). Ethical considerations and publishing in human bioarcheology. *American Journal of Biological Anthropology*, 1–5. <https://doi.org/10.1002/ajpa.24467>