

HARALD MELLER, JOHANNES KRAUSE, WOLFGANG HAAK, ROBERTO RISCH (Eds.), *Kinship, Sex, and Biological Relatedness: The Contribution of Archaeogenetics to the Understanding of Social and Biological Relations*. 15. Mitteldeutscher Archäologentag vom 6. bis 8. Oktober 2022 in Halle (Saale). Tagungen des Landesmuseums für Vorgeschichte Halle 28. Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt, Heidelberg 2023. 343 pages, 33 b/w and 137 colour figures, 23 tables, hardcover, ISBN 978-3948618667.

From 6–8 October 2022, leading specialists in the study of kinship in archaeological populations gathered in Halle for the 15th Archaeological Conference of Central Germany, on the theme ‘Kinship, Sex, and Biological Relatedness: The contribution of archaeogenetics to the understanding of social and biological relations’. The geneticists Wolfgang Haak and Johannes Krause from the Max Planck Institute for Evolutionary Anthropology in Leipzig and the archaeologists Roberto Risch of the Universidad Autónoma de Barcelona and Harald Meller of the Landesmuseum für Vorgeschichte in Halle coordinated the scientific meeting and the publication of this book. The aim of the conference was to discuss the theoretical and methodological foundations of this emerging field of study, which has been growing steadily in recent years.¹ Archaeogenetic studies are providing new and exciting data on the structure and residence patterns of populations that inhabited Europe during prehistory. Although certain archetypes recur throughout much of this period, the record continues to show exceptions, indicating that we are still far from understanding the complex and diverse mechanisms of organisation within these populations. Precisely for this reason, another challenge of this conference was to try to capture, through contributions from various disciplines, the different possible approaches to the slippery notion of kinship.² The definition of this concept occupies the first pages of the extensive bilingual English-German introduction provided by the book’s coordinators.

The interdisciplinary intention of this volume is evident from the outset. The first section, titled ‘Interdisciplinary Reflections’, features contributions from two social anthropologists, an archaeologist, a historian, and a geneticist. They provide their views, including criticism, on recent studies of kinship and the sometimes-challenging relationship between geneticists, archaeologists, and

anthropologists. Criticism has been directed at the extreme rigidity of pedigrees that classify individuals as if they were animal breeds (Tatjana Thelen, Chapter 1)³ and at the system of publication for these studies in high-impact scientific journals, for prioritising impact over interpretations based on the archaeological record (Aylwyn Scally, Chapter 5).⁴ In addition to providing constructive criticisms that can aid a better understanding among researchers from different branches, these initial chapters offer a readable overview of the evolution of kinship studies from anthropology and archaeology. Furthermore, they also provide some ideas on how to approach the analysis of kinship studies to gain a comprehensive view of this phenomenon.

Following these reflections, the section on methods is presented. This segment might be somewhat challenging for readers not specialized in archaeogenetics, since some parts are overly technical. It is important to note that chapters 7 and 8, written by Torsten Günther and Harald Ringbauer respectively, are exclusively in German, which may pose a challenge for some readers. This section discusses some of the latest software programs launched for detecting kinship relations in ancient DNA samples. Although this information may serve as a reference for archaeologists considering conducting such studies, it is important to note that, due to the rapid advances in the field of archaeogenetics, the information contained in these chapters may soon become out of date, as new methods are continually being published. Fortunately, not everything in this section is software. For instance, Kurt Alt’s research on odontological morphological traits (Chapter 6) presents a reliable alternative to genetics that remains valuable in situations where genetic material is not well preserved and allows comparison with contemporary populations. Of particular relevance is also the chapter by Ronny Friedrich, Ken Massy and Philipp W.

¹ p. 9.

² pp. 10–17.

³ p. 31.

⁴ p. 62.

Stockhammer, which demonstrates the potential of combining the Bayesian model and the pedigrees to adjust radiocarbon dating in periods where the calibration curve is flat, such as on the Hallstatt Plateau.⁵ This model can also be useful in scenarios where the calibration curve exhibits multiple peaks, enabling precise determination of the duration of different generations within a family.

The bulk of the book is devoted to presenting 14 case studies covering different chronologies and sample sizes. Most of these cases, although unpublished at the time of the conference, had already been published in peer-reviewed journals by the time this monograph was released. Nevertheless, the value of reading them is not diminished, as this format allows much more space for discussion or description of the archaeological context of the samples. As noted by Scally in Chapter 5, high-profile journal publications require condensed papers with minimal discussion.⁶ Contextual information is often found in the supplementary data, which can be tedious to navigate. Furthermore, although these works have already been published, it is highly beneficial and practical to have them compiled into a single volume, containing most of the recent publications on kinship relations in prehistoric Europe. Reading through these works in one go helps to identify consistent patterns in many studies, including those that are often overlooked, as well as the exceptions that make this line of research so compelling. In conclusion, these papers can be constructive for both researchers focusing specifically on a certain topic and non-specialists seeking a general overview of kinship studies in prehistory.

The case studies are organized chronologically, with chapters grouped into blocks with somewhat curious designations. The first block is called the Stone Ages, and covers one chapter dedicated to the Palaeolithic period, another to the Mesolithic (Chapter 13), two to the Neolithic (14 and 15), and even two chapters on the Copper Age (16 and 17) are included. These are short chapters, very easy and entertaining to read, which also benefit from careful graphic support, typically displaying the context of the tombs, some spectacular burial goods and graphics depicting pedigree reconstructions. The works presented in this section range from highly specific case studies such as the discovery of the famous double Gravettian burial of two newborns in Krems-Wachtberg, Austria (Christine Neugebauer-Maresch et al., Chapter 11, written in German), or the Mesolithic grave of a shaman and a child in Bad

Dürrenberg, Germany (Jörg Orschiedt et al., Chapter 12), to much broader studies like Niels N. Johannsen's work on socio-economic organization in the Globular Amphora network (Chapter 15).

The Stone Ages give way to the Bronze Age, where another four case studies on kinship in populations from different sites in Central Europe are presented. These chapters have a structure very similar to those in the previous section, mostly comprising studies already published in specialized journals and others published during the editing process of this book.⁷ In this section, the work of Katharina Rebay-Salisbury et al. (Chapter 19) stands out, not only for presenting some unpublished genetic data from the Early Bronze Age in Austria but also for its comprehensive research focus, specifically examining graves containing women and children buried together. Although the initial hypothesis was that biological relationships between the children and the women they were buried with would be found, only 6 out of the 11 cases analysed showed a biological connection.⁸ The authors discuss the possibility of a maternal role beyond biological relationships and a communal caregiving dynamic.⁹ It is regrettable that the significance of social connections over biological ones in archaeogenetic examinations of prehistoric kinship is not yet widely acknowledged elsewhere. Despite cross-cultural research repeatedly emphasizing the significance of the broader community in constructing kinship, works such as this chapter are exceptions to the norm.

Chapter 5 of this section is unique in that it does not present specific data from new studies. Instead, Joanna Brück critiques the narrative that existed until recently about social composition during the Bronze Age in Britain. The author criticizes the results of archaeogenetic research that 'appear to support views of male-dominated, hierarchical Bronze Age societies in which women are figured as passive objects of exchange, while male mobility is viewed as the result of activities such as warfare and trade'.¹⁰ In addition, she tries to re-examine the kinship relationships in Britain during the third and second millennia BC, using Iñigo Olalde et al.'s 2018 work as a reference,¹¹ among others, and to formulate and collect hypotheses that are at least curious,

⁵ pp. 105–109.

⁶ p. 62.

⁷ GERBER et al. 2023.

⁸ pp. 227–228.

⁹ p. 229.

¹⁰ pp. 249–250.

¹¹ p. 251.

such as marriages between women¹² or the extension of kinship to non-human entities such as animals or plants.¹³

The last section of this monograph, though the smallest in terms of numerical contributions, is dedicated to case studies of the Iron Age. This section also includes one study which chronologically falls outside of this era and deals with kinship in the early medieval Avar Empire (HistoGenes project, Chapter 24). Unlike the previous sections, none of the three chapters present results of genetic analysis to detect kinship relations per se. Nevertheless, they are still intriguing. Anton Gass, in his work on biological and social kinship in Scythian families (Chapter 23), highlights the scarcity of genetic analyses carried out on samples from the Iron Age.¹⁴ I fully agree with him, and I believe we are all eager to see the results that projects like the ERC-funded COMMIOS¹⁵ and MICROSCOPE¹⁶ will provide in the coming years regarding the social organization of Iron Age populations.

Due to the scarcity of data currently available, the chapter by Luka Papac et al. on intramural child burials in Iron Age Navarra is particularly stimulating. In this study, they sampled 37 infant individuals, mostly perinatal, as they were the only age group exempt from the predominant cremation ritual. Despite the sample's biases, the information obtained is fascinating. Firstly, they detected children buried together under the same house, despite showing no genetic relationship, indicating the use of these houses by different families or extended families.¹⁷ They also observed a curious sex ratio of 1.57:1 towards males.¹⁸ However, the most intriguing finding is the discovery of four cases of trisomies.¹⁹ This study, which has also recently been published alongside other cases of trisomies in *Nature*,²⁰ confirms a very high prevalence of these conditions for a population estimated to be relatively small. This study highlights precisely the immense possibilities that archaeogenetics, in this case along with palaeodemography,²¹ offers when attempting to

reconstruct the real size of populations or family structures. So far, this combination of archaeogenetics and palaeodemography has mainly focused on building demographic models to understand major migratory and admixture phenomena. However, it can undoubtedly provide us with a wealth of information about the effective population size of a community or even specific households.

This reinforces the idea of one of the main objectives of the workshop from which this monograph arises: achieving interdisciplinarity to make the most of the data provided by archaeogenetics. Despite these efforts, a quick glance at the authors of all these case studies reveals that true interdisciplinarity is still far off. For instance, palaeodemographers are absent, and only one out of the 14 cases includes a social or cultural anthropologist among the team members. Paraphrasing Sabina Cveček,²² 'Ancient DNA studies should engage with archaeological contexts through qualitative and quantitative analyses based on extensive ethnographic, cross-cultural archives of kinship [...] to avoid cross-disciplinary misunderstanding and the imposition of Eurocentric perspectives onto global settings.'

In addition to achieving genuine interdisciplinarity, this exciting new line of research faces several challenges. Exploring the various possibilities offered by kinship beyond genetic bonds is undoubtedly one direction in which research should head. However, we must also ask ourselves many questions with the data we already have and strive to push the boundaries of archaeogenetics further. For instance, what occurs when archaeogenetic analyses consistently indicate female exogamy, while strontium analyses suggest mainly local women? Can polygamy be distinguished from serial monogamy? Or how can archaeogenetics, in conjunction with other disciplines, aid in the reconstruction of individual personal biographies? I am confident that the Archaeological Conference of Central Germany, always attentive to cutting-edge research, will rise to the challenge of answering these and other questions in the years to come. In any case, we will all be eagerly awaiting the next monograph in this wonderfully curated collection that has consistently met our high expectations.

¹² p 255.

¹³ p. 250.

¹⁴ pp. 303, 305.

¹⁵ COMMIOS: Communities and Connectivities: Iron Age Britons and their Continental Neighbours, ID: 834087, <https://cordis.europa.eu/project/id/834087> (last access 8.8.2024). – ARMIT 2022.

¹⁶ MICROSCOPE: Zooming into the Population History of Iron Age Europe with Rare Genetic Variants, ID: 851511, <https://cordis.europa.eu/project/id/851511> (last access 8.8.2024).

¹⁷ pp. 283–287, 289.

¹⁸ p. 287.

¹⁹ pp. 287–289.

²⁰ ROHRLACH et al. 2024.

²¹ FRENCH et al. 2021.

²² CVEČEK 2024.

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