HSCE | Historical Studies on Central Europe

Historical Studies Central Europe 1, no. 2 (2021): 288–294
doi.org/10.47074/HSCE.2021-2.13

Gene und Geschichte. Was die Archäogenetik zur Geschichtsforschung beitragen kann. By Mitscha Meier and Steffen Patzold.

Stuttgart: Anton Hiersemann KG, 2021. 163 pp.

Levente Samu

Institute of Archaeological Sciences, Eötvös Loránd University, Faculty of Humanities, 1088 Budapest, Múzeum krt. 4/B; samu.levente@btk.elte.hu

In 2021, Mischa Meier[1] and Steffen Patzold[2] published *Gene und Geschichte* (Genes and History) about the historical interpretation of archaeogenetic results. The book deals with the problem in seven chapters, with the cited literature in the eighth chapter.

The introduction presents the main purposes of the work. After listing a few geneticists' publications on human history, including ones by Johannes Krause, his co-author Thomas Trappe, and Joseph K. Pickrell, and David Reich,[3] Meier and Patzold tell us that their aim is to evaluate the current state of research and its influence on historiography.

In the second (shortest) chapter, Meier and Patzold clarify what the term "history" should mean. For the authors, it is something which history and/or archaeology students should learn in their first semester: Accordingly, the study of history is connected with the appearance of written sources. In other words: there are regional differences in where history "starts". Everything that existed before written sources and deals with the human past, they contend, is the domain of archaeology and other disciplines, rather than history. The authors intend to investigate the contribution of archaeogenetics to historical research thus narrowly defined. This division of the human past based on the availability of written sources is well established and well known, but not universally accepted. This position is especially true for scholars at the Max Planck Institute for the Science of Human History, who study ancient genomes from the human past. For them, as well as for other experts,

1 Professor of Ancient History, University of Tübingen, Germany.

2 Professor of Medieval History, University of Tübingen, Germany.

3 Their bestsellers reached a wide audience. Krause and Trappe, "Die Reise unserer Gene"; Reich, "Who We Are and How We Got Here."

the scope of "history" is broader. As the historian Daniel Smail states, "[i]f humanity is the proper subject of history, then surely Paleolithic is part of our history."[4] To criticize Krause for his contribution to "history" is equally strange, as at least 40 or 50 percent of his publications contribute to the research of what the authors would term "prehistory".[5]

Chapter three deals with the problem of doing history. The authors emphasize that history is not simply the human past, it is not a summary of past events, nor is it a summary of the artefacts from the past. Their intention is to explain how history is written, what archaeogenetics may mean in this process, and how it may contribute to it. They claim that history begins where somebody has an interest in a specific event in the past and tries to interpret it. This interpretation will always remain subjective and will always depend on the individual's interests and questions. Much depends also on the narration: how we tell the story of the past event. In this chapter, they state that archaeogenetics does not pose any new questions that could fundamentally affect history or historiography. It is merely a tool to verify or contradict already known hypotheses of historiography. They argue that the main achievement of archaeogenetics is different: it can produce new, unique data for history and for those interested in human history, a goal that they consider significant.

It is hard to pose fundamentally new research questions that have never been asked. However, we can repeatedly re-examine existing questions by evaluating new sources, which may lead to a revision of previous interpretations. This is precisely where archeogenetics can make its greatest contribution. We can certainly agree with the authors that the acquisition of new data for historical sciences is a major achievement. It is already clear that by using the tools of archaeogenetics we can answer previously unanswered questions.[6]

In the fourth chapter, the authors explain the basic difference between historical research and the natural sciences, especially genetics. They emphasize that it is impossible to reconstruct the reality of the past in all its complexity. History is the study of humans as social beings. In doing history, scholars attempt to determine how these social beings interacted, or—at least—they try to reconstruct some aspects of these complex interactions. On the other hand, natural sciences operate with questions that are more concrete. For example, archeogenetics can decide whether the *Yersinia Pestis* was the cause of the Black Death pandemic in the fourteenth century. It can definitively

4 Smail, "In the Grip of Sacred History."

5 https://www.shh.mpg.de/Johannes-Krause-Publications (accessed: 30 September 2021).

6 The problem of the Avar-age elite is a pertinent example. It has been revealed that the known, analyzed, and richly furnished persons had a biological relation, which is enormously important from the perspective of social organization. Csáky et al., "Genetic Insights into the Social Organisation."

demonstrate that the answer is "yes." However, the actual story of the pandemic and how it influenced society and the era are questions for history to explore.

The authors sharply criticize the sensationalistic titles of some archeogenetical articles, titles that they label as caricatures oversimplifying highly complex issues. In addition, the authors also confront some results of archaeogenetics about the epidemics of fourteenth century England and conclude that aDNA genetic data also need to be interpreted. At the end of the chapter, they address the possibilities of integrating natural and historical sciences, a goal that they welcome even though they emphasize that it is crucial to understand, accept, and respect that the two work with different methods.

In the fifth chapter, the authors summarize the main results of archaeogenetics in the last ten years, concentrating on three topics: the fourteenth century plague; the sixth century plague of Justinian; and migration and mobility in the migration period. This the longest and most developed chapter, particularly concerning the uses of archeogenetics to understand the migration period.

In their discussion of the migration period, they clarify some questions concerning the history of research into this period and emphasize how the "Vienna School" of historians helped to change the older image of a *Völkerwanderung*. Among important aspects of this large topic, they first discuss the fall of the Roman Empire and the transformation of the Roman world. Second, they address the romantic idea of migrating peoples in the light of the possibilities of multiple identities, the processes by which early medieval groups were formed, and how they should be investigated. Third, they address ethnicity, emphasizing that not only must we abandon the search for biologically defined "peoples", but also the search for permanent ethnic identities. Today, ethnic identity is considered as unstable and subject to change even within a single lifetime. Perhaps the most important discussion is the fourth one concerning the statement that archaeological cultures are mere constructs of archaeologists. Any ethnic interpretation of material culture is problematic, hence the usage of these ethnic groups in archaeogenetics is also very dangerous ("thin ice" in the words of Meier and Patzold). Finally, in the fifth portion of the chapter the authors emphasize research that demonstrates the complexity of the movements by different groups of people.

The authors give a detailed analysis of a 2016 paper published in *Nature* by Stephan Schiffels and Wolfgang Haak on the migration of Angles and Saxons to Britain in the fifth to sixth centuries.[7] This critique is 23 pages, longer than chapters two and three combined! The authors do not discuss the methods of geneticists, only the results from the perspective of history. They criticize much in this article.

7 Schiffels et al., "Iron Age and Anglo-Saxon genomes."

In particular, they argue that the results are far more interesting from the perspective of population genetics than from that of historiography. They criticize the authors for a lack of familiarity with the latest historical literature (especially Guy Halsall's 2014 book [8]). They emphasize that admixtures can be interpreted not just as a result of migration but also of other processes. They also point out that there was already a dense network connecting Britain, Gaul, and northwest Germany, therefore it is not surprising that people were mixed. In summary, the authors think that the article does not address the actual current questions of early Britain's historiography.

The topic discussed in this chapter is the migration of the Lombards from Pannonia to Italy. After 106 pages of critique, the authors start introducing what they consider successful combinations of archeogenetics and history. They offer a favorable evaluation of the contributions of Patrick Geary and Krishna Veeramah in their *Nature Communications* article that analyzes the cemeteries of Szólád and Collegno, sympathizing with their careful formulations concerning many important aspects of aDNA research and calling their work exemplary for future research.[9] In particular, they emphasize the importance of Geary and Veeramah's cautious interpretations. The main goal of their study, as the authors point out, was neither the verification nor the disconfirmation of wandering theories but rather the exploration of the inner social organization of smaller groupings. Meier and Patzold cite European Research Council-sponsored *HistoGenes*[10] as a project that can bring much to the research of the human past. They welcome the fact that the historians Walter Pohl and Patrick Geary are among the leaders of the project. However, for some reason, the two other project leaders, the archeologist Tivadar Vida and the geneticist Johannes Krause, are passed over in silence.

Chapter six deals with a more general problem. Here the authors attempt to evaluate how the natural sciences and their methodologies are increasingly used and, indeed, expected in historical research. They warn against this phenomenon and suggest a more conscious use of these methods. They think that cooperation can be a win-win situation but without carefully thought out, reasoned questions and modest interpretations it cannot work well. From an archaeological point of view, this chapter is somewhat surprising, since archaeology developed a productive collaboration with the natural sciences many decades ago. The natural sciences have made a great impact on archaeological research and they broaden research fields and questions of archaeology. Indeed, archaeology has experienced a paradigm shift caused by natural sciences.[11]

8 Halsall, "Worlds of Arthur."

9 Amorim et al., "Understanding 6th-Century Barbarian Social Organization."

10 Pohl et al., "Integrating Genetic."

11 Turney, "Radiocarbon Revolution."

The final, seventh chapter entitled "How could cooperation work?" deals with cooperation between natural sciences and history. This is essentially a summary of the entire book and its conclusions. They state that archaeogenetics is a young discipline just starting to produce significant results concerning the migration period. They emphasize that archaeogenetics is useful only in answering specific questions. They consider that it is just one tool in the toolbox of historical research and that it is especially appropriate for analyses of smaller communities. For formulating more general theories about history, the other tools of historical research are required. They repeatedly state that the analysis of aDNA is not history; it is just material for interpretation, together with other sources.

The book has certain positive features. One is the publicity it provides that will intensify the discussion about archaeogenetics and history. The authors' discussion about the complexity of possible forms of historical data interpretation is also important. We cannot emphasize enough that cautious interpretations are crucial in this field. They are critical from the perspective of historiography: they help us in avoiding big mistakes when asking questions or interpreting our data. The authors also warn against the political use of genetic results, which is a veritable danger.[12] They are certainly correct in arguing that archaeogenetics has the most robust tools for the analysis of the small or, more precisely, completely excavated communities. They also rightly express their high hopes about the current *HistoGenes* project, which is led by four scholars: two historians, an archaeologist and a geneticist.

However, their positivity about *HistoGenes* is somewhat confusing since the book is built upon strong criticism of Johannes Krause and his *Die Reise unserer Gene,* a book repeatedly cited with much irony. They also doubt the main purpose of the Max Planck Institute for the Science of Human History, considering it excessive and criticizing it already for the word *Menschheitsgeschichte* in its name. It is also strange that they overlook Johannes Krause and Tivadar Vida in the context of the *HistoGenes* project, though both are leaders of the project: Vida coordinates its archaeological investigations, while Krause is the head of genetic analysis. The authors put the focus on a bestseller, written in a readily accessible style, without taking into account Krause's vast, more specialized and scientific work.

Meier and Patzold's *Gene und Geschichte* could be a treasure trove and a fundamental guideline for geneticists, archaeologists, and historians dealing with aDNA in avoiding major errors, but, sadly, it is not. Unfortunately, the ironic tone in which an old understanding of the historical craft is employed to proclaim the superiority of the historian over the natural scientist[13] ruins the book. The stated goals, namely

12 Hakenbeck, "Genetics, Archaeology and the Far Right."

13 They use the word "Hilfswissenschaft" for archaeology and other disciplines that deal with the human past which is truly old-fashioned, although they say "hat überhaupt nichts Ehrenrühriges an sich" (p. 129).

the evaluation of the state of research in the field of archaeogenetics and its impact on history, cannot be accomplished in this way. We should understand that the discipline of archeogenetics has so far focused on history prior to the Middle Ages, and as it moves into the more recent past, its greatest results are in the future.

Literature

Amorim, Carlos Eduardo G., Stefania Vai, Cosimo Posth, Alessandra Modi, István Koncz, Susanne Hakenbeck, Maria Cristina La Rocca, Balázs Mende, Dean Bobo, Walter Pohl, Luisella Pejrani Baricco, Elena Bedini, Paolo Francalacci, Caterina Giostra, Tivadar Vida, Daniel Winger, Uta von Freeden, Silvia Ghirotto, Martina Lari, Guido Barbujani, Johannes Krause, David Caramelli, Patrick J. Geary, and Krishna R. Veeramah. "Understanding 6th-century barbarian social organization and migration through paleogenomics." *Nature Communications* 9, (2018): Article number: 3547. doi.org/10.1038/s41467-018-06024-4.

Csáky, Veronika, Dániel Gerber, István Koncz, Gergely Csiky, Balázs G. Mende, Bea Szeifert, Balázs Egyed, Horolma Pamjav, Antónia Marcsik, Erika Molnár, György Gulyás, András Pálfi, Bernadett Kovacsóczy, Gabriella M. Lezsák, Gábor Lőrinczy, Anna Szécsényi-Nagy, and Tivadar Vida. "Genetic Insights into the Social Organisation of the Avar Period Elite in the 7th Century AD Carpathian Basin." *Nature: Scientific Reports* 10, no. 1 (2020): 948. doi.org/10.1038/s41598-019-57378-8.

Geary, Patrick J.and Krishna Veeramah. "Mapping European Population Movement through Genomic Research." *Medieval Worlds* no. 4 (2016): 65–78. https://doi.org/10.1553/medievalworlds_no4_2016s65.

Hakenbeck, Susanne. "Genetics, Archaeology and the Far Right: An Unholy." *World Archaeology* 51, no. 4 (2019): 517–27. doi.org/10.1080/00438243.2019.1617189.

Halsall, Guy. *Worlds of Arthur. Facts and Fictions of the Dark Ages*. Oxford: Oxford University Press, 2014.

Krause, Johannes and Thomas Trappe. *Die Reise unserer Gene. Wie Migration und genetischer Austausch Europa prägt*. Berlin: Propyläen Verlag, 2019.

Pohl, Walter, Johannes Krause, Tivadar Vida, and Patrick J. Geary. "Integrating Genetic, Archaeological, and Historical Perspectives on Eastern Central Europe, 400–900 AD." *Historical Studies on Central Europe* 1, no. 1 (2021): 213–28. doi.org/10.47074/HSCE.2021-1.09.

Reich, David. *Who We Are and How We Got Here*. Oxford: Oxford University Press, 2018.

Schiffels, Stephan, Wolfgang Haak, Pirita Paajanen, Bastien Llamas, Elizabeth Popescu, Louise Loe, Rachel Clarke, Alice Lyons, Richard Mortimer, Duncan

Sayer, Chris Tyler-Smith, Alan Cooper, and Richard Durbin. "Iron Age and Anglo-Saxon Genomes from East England Reveal British Migration History." *Nature Communications* 7 (2016): Article number: 10408. doi.org/10.1038/ncomms10408

Smail, Daniel. "In the Grip of Sacred History." *American Historical Review* 110, no. 5 (2005): 1336–61. doi.org/10.1525/9780520934160-003

Turney, Chris. "Radiocarbon Revolution: The Story of an Isotope." *Nature* 570 (2019): 304–5. doi.org/10.1038/d41586-019-01895-z