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Designing a Next-Generation Approach to Archaeogenetics, Social Organization and Identity: Report on the CfAS/CCSA Design Workshop in Oeversee, Germany, 23–27 March 2026

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Abstract

The design workshop *From Close Kinship to Population Interactions in the Deep Past: Integrating Biological and Cultural Indicators of Social Identities in a Multiscalar Framework* (March 2026, Oeversee, Germany) brought together international scholars to develop a next-generation approach to the use of archaeogenetic data for investigating ancient social organization and identity. Workshop participants spent a week exploring ways to more effectively integrate archaeogenetic, cultural and environmental data into more nuanced reconstructions of kinship and population turnovers in the archaeological record. By the end of the workshop, participants had made concrete progress on two synthetic review articles and had outlined future plans for a follow-up workshop and a research grant proposal.

Keywords:
archaeology, genetics, kinship, population turnover, social organization, identity

Zusammenfassung

Der Design-Workshop *„From Close Kinship to Population Interactions in the Deep Past: Integrating Biological and Cultural Indicators of Social Identities in a Multiscalar Framework“* (März 2026, Oeversee) brachte internationale Wissenschaftlerinnen und Wissenschaftler zusammen, um einen Ansatz der nächsten Generation für die Nutzung archäogenetischer Daten zur Erforschung sozialer Organisation und Identität in vergangenen Gesellschaften zu entwickeln. Die Teilnehmenden verbrachten eine Woche damit, Möglichkeiten zu erarbeiten, archäogenetische, kulturelle und umweltbezogene Daten effektiver miteinander zu verknüpfen, um differenziertere Rekonstruktionen von Verwandtschaftsstrukturen und dem Wandel von Populationen im archäologischen Befund zu ermöglichen. Bis zum Ende des Workshops hatten die Teilnehmenden konkrete Fortschritte bei zwei synthetischen Übersichtsartikeln erzielt und zukünftige Pläne für einen Folgeworkshop sowie einen Forschungsantrag skizziert.

Schlüsselwörter:
Archäologie, Genetik, Verwandtschaft, Populationswandel, soziale Organisation, Identität

Introduction

From 23 to 27 March 2026, the design workshop *From Close Kinship to Population Interactions in the Deep Past: Integrating Biological and Cultural Indicators of Social Identities in a Multiscalar Framework* was held at Akademie Sankelmark [*tr.* Sankelmark Academy] in Oeversee, Germany. The workshop was organized by Niels Nørkjær Johannsen (Aarhus University) and Kent Johnson (SUNY Cortland – State University of New York at Cortland), in collaboration with colleagues from several institutions, including Martin Furholt and Hendrik Raese (Kiel University), Sabina Cveček (Field Museum), Felix Riede (Aarhus University) and Maxime Brami and Maria Ivanova-Bieg (University of Mainz). Additional workshop participants were selected from a competitive pool of applicants. These included Chris Fowler (Newcastle University), Raven Garvey (University of Michigan), Eduardo Amorim (Arizona State University), Daniela Hofmann (University of Bergen), Cansu Karamurat (Aarhus University), Samantha Scott Reiter (National Museum of Denmark), Maïté Rivollat (University of Bordeaux) and Marie Soressi (Leiden University).

The workshop was financially supported by the Coalition for Archaeology Synthesis (CfAS) at the University of Colorado Boulder and the Center for Collaborative Synthesis in Archaeology (CCSA) at Kiel University. Critical logistical planning was provided by Hendrik Raese and Martin Furholt.

The general principle of CfAS design workshops is to bring together diverse groups of researchers to collaboratively design a synthetic research project that addresses important social science questions which not only impact our understanding of the past but also affects public discourse and policy on contemporary social issues. The workshop at Akademie Sankelmark focused on the impact of genetic studies on our understanding of social organization and identity in the past and their repercussions in the present.

Archaeogenetic studies have enormous potential to provide new insights into past demographic and social processes, from large-scale population dynamics (e.g., migration, the spread of technology and ideas and population turnovers) to highly detailed reconstructions of kinship arrangements. However, many archaeologists remain dissatisfied with the ways in which aDNA research has come to dominate narratives of the past, especially regarding identity formation and social organization (Frieman/Hofmann 2019). Concerns have been raised about the way aDNA data generation has overtaken serious theory-building; the dearth of investment in strategic, collaborative and ethical aspects of research designs (Johannsen et al. 2017); and the ease with which archaeogenetic results feed into essentialist conceptions of kinship (Cveček 2024), community organization and other aspects of identity in the media and among political pundits (Hakenbeck 2019). With its large, diverse datasets and extensive engagement with theory development and testing, archaeology should play a greater role in building integrated interdisciplinary understandings of identity and in generating syntheses of past social dynamics that can inform the general public.

The spring 2026 CfAS/CCSA design workshop brought together 15 international experts in archaeology and genetics to work intensively for a week to develop a next-generation approach for archaeogenetic research in archaeology. Over the course of the workshop, participants discussed the current state of archaeogenetic approaches to social organization and identity, identified existing challenges and opportunities for producing more nuanced and contextual reconstructions of past social organization and identity and developed tangible plans to address current limitations and challenges.

Workshop programme

To optimize the benefit of bringing together participants' diverse strengths and talents, workshop co-organizers Johannsen and Johnson provided only a skeletal structure for the programme. It was left to the workshop participants to discuss and gradually specify exactly what a next-generation approach to social organization and identity might look like, what this would entail in terms of meaningful strategies and resources, and what tangible steps should be taken during and after the workshop to accomplish those goals.

During the first two days of the workshop, participants spent time getting to know one another and identifying concrete outcomes for the week, including next steps following the workshop. After brief welcoming remarks and introductions, participants split into groups of three or four and walked around the Sankelmarker See [*tr.* Lake Sankelmark], the small lake near the conference grounds, to discuss the current state of archaeogenetic research on social organization. After coffee, the groups reconvened to share insights and ideas for addressing current limitations in the field. On Tuesday, the goal was to identify concrete workshop outcomes and establish working groups to ac-

complish them. This was achieved through a combination of plenary discussions, small-group work and a walking tour of the nearby megalithic tombs at Arnkiel Park near Munkwolstrup (Fig. 1).

Collectively, we decided to write two parallel critical review papers focusing on archaeogenetic approaches to two different scales of social organization and processes: kinship and population turnover (replacement). Wednesday and Thursday were devoted to planning and outlining these two papers. This was accomplished by two teams working in intensive collaborative sessions, each taking the lead on one scale and paper. At the end of each day, this mode of work was combined with check-in sessions involving the larger group to discuss progress, challenges and connections. Thursday ended with dinner (and beer!) at a local brewery in Flensburg (Fig. 2).

On Friday, the morning was spent planning next steps and assigning tasks within the smaller teams, while the afternoon was devoted to a plenary session focused on coordinating the preparation of joint manuscripts, planning another workshop for April 2027 and developing a strategy for securing funding to support a wider, longer-term collaborative working group of international archaeologists, geneticists and other researchers to further develop and implement our next-generation approach to social organization and identity in the past.

Kinship

Studies using genome-wide archaeogenetic data to investigate aspects of kinship in the past have proliferated over the past ten years. Since the very recent advent of genome-wide archaeogenetic data, there has been no comprehensive attempt to take stock of the variability in descent systems through time as depicted by this new line of evidence, or of its implications for broader considerations of kinship in the past. Most genomic studies of kinship focus on single sites (e.g., Schroeder et al. 2019; Fowler et al. 2022; Rivollat et al. 2023), with very few attempts to synthesize findings at regional or continental scales (cf. Booth et al. 2021). Although explicitly rejected by anthropologists and archaeologists, simplistic evolutionary models of human social organization (e.g., Morgan 1877) continue to influence contemporary interpretations of ancient sociality (Graeber/Wengrow 2021).

The kinship team decided to address this critical gap in the literature by conducting a global survey of archaeogenetic kinship studies. This survey will evaluate the classic unilineal evolutionary model of kinship, focusing on descent as developed by Lewis H. Morgan (1877). According to Morgan, kinship developed along a unilineal trajectory alongside other aspects of human culture, especially food production, beginning with the simplest hunter-gatherer

Figure 1: Workshop participants pose for a group photo in front of a restored megalithic tomb at Arnkiel Park. Photo: H. Raese.

Figure 2:
Enjoying dinner and beer at a local brewery in Flensburg.
Photo: E. Amorim.

societies ('savagery') characterized by matrilineal descent. The next evolutionary stage ('barbarism') consists of settled agricultural societies associated with patrilineal descent, while the most highly evolved stage ('civilization') is characterized by industrial societies practicing bilateral descent. Although this model has long since been discarded by sociocultural anthropologists and most archaeologists, it still influences interpretations of archaeogenetic data and retains currency among broader, non-specialist audiences. For example, Bradley E. Ensor (2021) argues that many archaeogenetic studies reporting evidence for patrilineal descent and patrilocal residential practices have incorrectly interpreted their data due to assumptions and biases reflecting the ongoing influence of early evolutionary models of kinship and social organization.

During the team-based work sessions, the kinship team identified archaeogenetic studies for evaluation and created a shared spreadsheet for compiling data during article review. The latter required agreement on variables of interest and the collaborative development of coding protocols. The team standardized data collection procedures and tested the coding protocols by collectively scoring one article (Fig. 3). A consensus-based approach to developing the vision for the paper and troubleshooting methodological challenges helped us establish a detailed outline and clear goals for the manuscript. Importantly, we also had frank discussions regarding authorship roles and positions.

Tentatively entitled 'Revisiting the Evolution of Kinship,' the goals of the paper are as follows. First, to highlight the variability in descent practices through time and

Figure 3:
Team Kinship hard at work, considering coding protocols.
Photo: K. Johnson.

across space, while potentially identifying cultural and environmental factors that contribute to changes in descent over time. Second, to demonstrate the need for approaches that emphasize archaeological context and result in more nuanced and complex interpretations. Kinship involves much more than descent, and the paper will highlight several case studies that consider additional aspects of kinmaking, including post-marital residence practices, marriage and partnering practices and social kinship practices, such as adoption, fostering, co-residence, commensality and others. Third, our discussion will underscore the difficulty of synthesizing more contextual and social approaches to kinship, due to the uneven approaches (e.g., different types of data, different methods, different aspects of kinship investigated, etc.) used to study social dimensions of kinship and kinmaking. Finally, we will propose concrete strategies for better integrating archaeogenetic, archaeological and environmental data within a coherent framework for investigating social kinship in the past. This framework may allow researchers to develop models that incorporate kinship, socioeconomic production, political organization and environmental variables in a non-reductive and non-deterministic manner.

Population turnover

In addition to kinship, archaeogenomic data are often used to investigate large-scale population dynamics. Recent palaeogenomic studies suggest that human palaeodemography was, to a large extent, characterized by a series of population turnovers rather than stability and growth, with these turnovers often associated with major cultural transitions (e.g., Haak et al. 2015; Olalde et al. 2018; Posth et al. 2018; 2023; Allentoft et al. 2024). Evidence indicates that past human demography was not stable, but the number, scale and extent of population turnovers remain contested, in part because proposed turnovers are often poorly defined in terms of (1) their spatial and chronological scales, (2) the extent of turnover (i.e., along a spectrum from admixture to full replacement) and (3) the underlying processes involved.

To address these issues, the population turnover team embarked on a synthetic literature review using a formalized scoping review methodology (O'Dea et al. 2021). The team assesses the methodological, empirical and contextual comparability of archaeogenetic cases of population turnover and traces their subsequent reception. During group working sessions, the turnover team identified a preliminary list of archaeogenetic studies for evaluation and created a shared spreadsheet for compiling data during article review. This required in-depth discussions of the various types of genetic data used in the literature as well as the assumptions, strengths and limitations of different analytical methods applied to genetic data (Fig. 4). Like the kinship team, the turnover team held open and transparent discussions regarding authorship roles and positions.

Tentatively entitled 'Revisiting Population Turnovers in Human History,' the paper will assess recent claims of

Figure 4:
Team Population Turnover discussing genetic data and analytical methods.
Photo: K. Johnson.

past human population turnovers, with a focus on the period from ca. 70,000 BCE to ca. 1500 CE in Europe and South America. The paper will make four main contributions. First, it demonstrates how the terminology of population change varies across studies and how the processes resulting in population changes often remain speculative and underdetermined by the data used. Second, it argues for more diligent, systematic and ambitious metadata recording and analysis to facilitate comparative and synthetic analyses. For example, greater attention to the actual speed of any turnover – often readily constrainable by available radiocarbon dates – can go a long way toward better defining the nature of any identified turnover. Third, it argues for greater theoretical awareness in the modelling of these different 'turnover' events and the variety of culturally plausible scenarios that may be covered by this term. Finally, it advocates for more rigorous modelling of palaeodemographic parameters that influence population interactions (e.g., measures of population size, fertility, etc.), as demography remains a black box in many studies claiming population replacement.

Future plans

By the final day of the workshop, members of both paper teams had agreed on a joint timeline for producing the papers, including remote meetings throughout summer and autumn 2026, deadlines for the completion of various work stages, and a target journal and submission date. In addition to developing this ambitious but attainable publication timeline for the joint manuscripts, workshop participants identified two clear next steps for our longer-term working group: (1) a follow-up workshop and (2) preparation of a major research grant proposal.

The follow-up workshop is planned for spring 2027 and will include those who attended the 2026 CfAS/CCSA Design Workshop, as well as additional researchers in archaeology, genetics and data modelling. The focus of this future workshop will be to: (1) explore tangible strategies for integrating the two different scales of sociality examined in our joint papers (kinship and population dynamics) into a multiscalar framework; and (2) initiate plans for a research grant proposal to develop and implement a next-generation approach to social organization and identity in the past.

Our approach will attempt to synthesize existing datasets relevant to kinship and larger scales of social affiliation into a comprehensive framework that integrates biological, cultural and environmental data with contemporary social and evolutionary theory, using the latest methodological techniques. We also aim to conduct targeted data collection to fill gaps in existing datasets.

Conclusion

During the workshop, participants worked intensively to chart tangible steps for more effectively integrating archaeological and archaeogenetic approaches to identity and social organization at two very different scales. We also dedicated time to getting to know one another, building a sense of community and laying the foundation for a long-term collaborative working group (Fig. 5). All in all, it was a fun, intense and highly productive week at Akademie Sankelmark.

Figure 5: Workshop participants enjoying a break in the seminar room at Akademie Sankelmark. Photo: M. Furholt.

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