

Kendra Sirak

My formal education is as a biological anthropologist (Ph.D. 2018, Department of Anthropology, Emory University). Since graduating, I have worked in the Department of Genetics at Harvard Medical School and the Department of Human Evolutionary Biology at Harvard University, where I am currently a senior staff scientist in the lab of Dr. David Reich following the successful completion of a postdoc also in this lab.

In my current role, I spend most of my time identifying, establishing, and growing international partnerships for our lab; delivering strategic subject matter expertise to organizations around the world; effectively communicating our work to academic and non-academic audiences from diverse backgrounds; fostering equitable and engaged partnerships with non-scientific stakeholder groups; and organizing and leading events that are aimed at increasing equity in science. At the same time, I am an analyst who works with genome-wide ancient human DNA data to investigate the demographic events that took place in the past and understand the development of genetic structure in human populations today. I am currently analyzing data from ancient people who lived hundreds to thousands of years ago in the places that are today Yemen, Ethiopia, Sudan, and the Caribbean.

I have a strong interest in building strong and mutually beneficial relationships with colleagues in Africa and have focused on designing and leading initiatives that provide practical experience and new knowledge to African-based students. As a National Geographic Explorer, I lead a project that explores the genetic origins and affinities of Later Stone Age people from the northern Sahel while concurrently developing a program for scholarly and community involvement that will provide students with a new skill set and non-academic Senegalese with a new lens for understanding the past. I am also co-organizing the "DNAirobi" workshop, which will be held in May 2023 and is the first ancient DNA- and population genetics-focused workshop to be held in Africa (Nairobi, Kenya), with the aim increasing the accessibility of DNA and ancient DNA research to underrepresented stakeholders who often face significant barriers to attending such events.

<https://heb.fas.harvard.edu/people/kendra-sirak>

Wolfgang Muller

By applying spatially-resolved isotope and elemental analysis to various archives, we reconstruct the palaeoenvironment at the highest time resolution, from daily to seasonal or annual (see Müller & Fietzke, 2016 for an overview article). Owing to the strongly seasonal climate on Earth, one overarching hypothesis is that changes in seasonality may have contributed to both climate transitions or modified ecological behaviour, hence the necessity for sub-annual time resolution.

We are utilizing fast growing (~0.1-10s mm/yr) biomineral archives such as corals, mollusks, large benthic foraminifera or teeth, besides ice cores and speleothems as archives of sub-seasonal environmental change. Applications include diverse areas in palaeoclimate research, both in 'deep-time' and at glacial-interglacial time-scales, as well as palaeoecology and anthropology/archaeology. Deep-time palaeoclimate work includes the development and

application of large-benthic foraminifera as a viable new tool especially for the Paleogene (Evans et al. 2012, 2013, 2014, 2015, 2016), as well as Miocene corals and giant clams (Griffiths et al. 2013, Warter et al., 2015, 2017). Glacial-interglacial research focuses on speleothems (Luetscher et al., 2015) or utilizes our pioneering cryo-cell UV-LA-ICPMS methodology to analyze dust in frozen ice at unprecedented spatial/time resolution (~200 μm) to establish the speed of natural abrupt climate change in deep Greenland ice (Müller et al., 2011; Della Lunga et al., 2014, 2017). Work using teeth focuses on various projects including human and faunal samples (e.g. mammoth) ranging from the Pleistocene to modern. Using a combination of spatially-resolved isotope proxies (Sr, O, Ca) in combination with trace element ratios and enamel histology we can reconstruct past life histories at unprecedented resolution (Alt et al., 2013, 2014; Müller & Anczkiewicz, 2016; Li et al., 2016; Müller et al. forthcoming).

A common feature of our research over the years has been the close interplay between applications and the methodological developments necessary to achieve these goals. Good examples illustrating this interplay include 1) Our early work on dating deformation, where we constrained for the first time directly duration and rates of shear zone activity (Science 2000; Terra Nova 2016), 2) the development of in-situ Hf isotope analysis including non-radiogenic ratios applied to the oldest minerals formed on Earth, the Jack Hills zircons (Science 2005), 3) the development of the prototype RESOLUTION laser-ablation system with two-volume LA cell at Royal Holloway Univ. London in 2006-07 (JAAS 2009), 4) the development of the cryo-cell LA holder for elemental analysis of frozen ice cores at ~200 μm spatial resolution (JAAS 2011; The Cryosphere 2017) or recently 5) triple-quad ICP-QQQ coupled to LA for low-level sulphur in ice cores (2015 NERC grant). Overall, laser-ablation ICPMS (LA-ICPMS) and/or SIMS besides conventional micro sampling/ drilling form the cornerstone of our versatile toolkit. In recognition of our LA work we were invited to host an international conference on Laser-Ablation, namely the 2014 European Workshop on Laser Ablation (EWLA2014) with ~170 participants (then at RHUL).

Finally, following on from my PhD research (Müller et al. 2000, 2001, 2002), applications in tectonics include dating brittle deformation using U-Pb applied to calcite slickenfibres (Rittner 2013), laser-cut Rb-Sr micro sampling (Egli et al., 2016) and U-Pb dating and Hf-isotope systematics of (detrital) zircons (Lambert-Smith et al., 2016; Harrison et al., 2005; Müller et al., forthcoming). Most recently, using the new triple-quad ICP-QQQ we are exploring direct in-situ Rb/Sr dating of micas.

All this research is highly collaborative and benefits enormously from many existing international collaborations and we very much welcome new collaborations using the excellent facilities here in Frankfurt.

<https://www.uni-frankfurt.de/49540288/Homepage-Mueller>

Helen Farr

I am currently PI of an ERC StG funded Horizon 2020 Grant, ACROSS: the origins of seafaring to Sahul. This research project draws together my interest in early human maritime connections and movement, with a focus on seafaring in deep time within changing marine and coastal environments. This project uses industry acquired seismic data and marine cores to reconstruct

ancient sea-levels and the Late Quaternary coastlines, now submerged landscapes, of the Australian continental shelf. Alongside archaeogenetics, archaeology and a study of palaeo winds, currents and tides, it is possible to use this data to better understand the how, why and when of the earliest seafaring in global history.

<https://www.southampton.ac.uk/people/5x7hgq/doctor-helen-farr>

Paola Cerrito

I am an evolutionary primatologist (PhD, '22, New York University) interested in the selective pressures and proximal mechanisms that have shaped and allowed for the evolution of our peculiar life history on one hand, and social cognition on the other. Is it possible to create unifying frameworks linking the energetic budget of a species, to its social and breeding behavior, and all the way to its empathic abilities? To address these questions, my research builds upon contributions from a variety of disciplines, e.g. hominin paleobiology, primate comparative neurobiology and communication and life history theory.

During my postdoc, I take a comparative approach to investigate the presence of shared neurobiological traits that could help explain the high levels of sociality observed in some primates, including humans. Based on previous work on humans and naked mole rats, I hypothesize that the timing of brain development is critical for the development of prosocial traits. Neural connectivity occurs while the infant is cared for by – and establishes effective communication with – a plurality of individuals including caregivers and play partners. To test my hypothesis I use noninvasive methods such as structural magnetic resonance imaging and behavioral observations of marmosets, humans and other primates (e.g. chimpanzees and macaques).

<https://www.aim.uzh.ch/en/members/researchersandpostdocs/paolacerrito.html>

Kristian Kristiansen

Kristian Kristiansen, since 1994 professor of archaeology (chair) at the department of Historical Studies, University of Gothenburg, since 2020 affiliate professors at Globe Institute, Lundbeck Center for Geogenetics, Copenhagen University.

Profile: I am a broad-minded interdisciplinary researcher. My research combines grand narratives with in depth studies of local settlements, and collaboration with scientists.

In my ERC advanced Grant: *'The Rise'*, (2011-2016), I collaborated with geneticists, (the Eske Willerlev team in Copenhagen) as well as scientists doing strontium isotopic research (Karin Frei and Doug Price), and this collaboration continued in the project *'Towards a new European Prehistory'*, funded by the Swedish Riksbank foundation with 4.5€ (2017-2022).

Most recently I coordinate an ERC Synergy grant *Corex: 'From correlation to explanation'* (2021-2027) with UCL and Copenhagen (10 million €, homepage: www.corex-erc.com)

Throughout my career I have also been engaged in various capacities in archaeological heritage, which resulted in the formation and funding of a *Centre for Critical Heritage Studies* at GU which I directed until 2019, since then as deputy (www.gu.se/en/critical-heritage-studies). I coordinated a Marie Curie Research Training Network with 15 PhD students on Critical Heritage (2017-2021).

Publication output. Kristian Kristiansen has published 25 books, and more than 150 papers in peers reviewed journals, seven books at Cambridge University Press, and one at Routledge.

<https://www.gu.se/en/about/find-staff/kristiankristiansen>

Radu Iovita

I am a [four-field trained](#) anthropological archaeologist with broad interests in the archaeology of human evolution, human-environmental interactions, and stone tool technology. I came to NYU after eight years as a postdoc and eventually Senior Research Scientist at the [Leibniz Research Institute for Archaeology](#) in [Castle Monrepos](#), Germany. I got my PhD at [Penn](#) under the late [Harold Dibble](#), my Master's at [Cambridge](#) with [Paul Mellars](#) and my undergraduate at [Harvard](#) with [Ofer Bar-Yosef](#) (my more ancient academic kinship to be found at [Anthropology Tree](#)). Having participated in field projects all over the Old World, I eventually settled on doing my own research in the Eurasian loess steppe. In 2013 I completed a survey project in southeastern [Romania](#) and began work in Central Asia. I currently direct the [European Research Council](#)-funded [PALAEOSILKROAD](#) project in Kazakhstan, which investigates the role of geography and climate in Late Pleistocene human dispersals in central Asia. My [Anthropography](#) lab here at NYU tries to answer historical questions at different scales, using microscopes to peer into the forensics of ancient tool use and remote sensing to recover past landscapes.

<https://as.nyu.edu/faculty/radu-iovita.html>

Kristina G. Douglass

Kristina Douglass is an archaeologist who investigates how people, land- and seascapes co-evolve. She is an Associate Professor of Climate at Columbia University and a Smithsonian Institution Research Associate. Her work is grounded in collaborations with local, Indigenous, and descendant (LID) communities as equal partners in the co-production of science, and the recording, preservation and dissemination of LID knowledge. Douglass and her collaborators aim to contribute long-term perspectives on human-environment interactions to public debates, planning and policymaking on the issues of climate change, conservation, and sustainability. Since 2011 Douglass has directed the Morombe Archaeological Project (MAP), based in the Velondriake Marine Protected Area and Commune de Befandefa in southwest Madagascar. This territory is home to diverse communities, including Vezo fishers, Mikea foragers and Masikoro herders. The MAP team is made up of local community members, and an international group of graduate students and postdoctoral researchers. The MAP is anchored to the Olo Be Taloha Lab (@OBTLab) housed at the Lamont Doherty Earth Observatory. Douglass is a mother, singer,

dancer, Capoeirista, SCUBA diver and avid gardener, all of which intersect in essential ways with her work as an archaeologist and climate scientist.

<https://people.climate.columbia.edu/users/profile/kristina-douglass>

Krish Seetah

I am a zooarchaeologist, whose focus is primarily on colonisation and colonialism. My zooarchaeological research has used butchery analysis (with the benefit of professional and ethnographic actualistic experience) to investigate agency within the human-animal relationship. More recently, I have employed geometric morphometrics (GMM) as a mechanism for identifying and distinguishing animal populations. This approach to studying colonial activity centres on understanding how people manipulate animal bodies, both during life and after death.

Alongside the strictly faunal research is a research interest in technologies associated with animal processing. This has been used to investigate issues of technology, trade and socio-economic attitudes within colonial contexts in the Mediterranean (Venice & Montenegro) and the Baltic (Poland, Latvia & Lithuania).

I am also the Director of the ‘Mauritian Archaeology and Cultural Heritage’ (MACH) project, which studies European Imperialism and colonial activity. This project centres on the movement of peoples and material cultures, specifically within the contexts of slavery and Diaspora. The work of this project has focused on key sites in Mauritius and is based on a systematic programme of excavation and environmental sampling. The underlying aims are to better understand the transition from slavery to indentured labour following abolition, the extent and diversity of trade in the region and the environmental consequences of intense, monoculture, agriculture.

<https://anthropology.stanford.edu/people/krish-seetah>

Severin Fowles

I am an anthropologist whose scholarship combines archaeological methods with perspectives drawn from Critical Indigenous Studies, Art History, Religious Studies, and New Materialist Philosophy to reimagine the history of the American West. I have directed excavations at archaeological sites spanning ten thousand years—from the camps of early foragers, to Ancestral Pueblo villages, to a Spanish colonial plaza community, to a 1960s hippie commune—as well as landscape surveys, including a decade-long rock art survey of the Rio Grande del Norte National Monument and an ongoing survey of late pre-colonial and early colonial agricultural systems, the latter conducted on behalf of Picuris Pueblo in support of their struggle to reclaim land and water. Increasingly, my research emerges through formal partnerships with descendant communities. In addition to Picuris Pueblo, I maintain various collaborations with the Comanche Nation as well as the Indo-Hispano community at San Antonio del Embudo, NM.

My first book, *An Archaeology of Doings: Secularism and the Study of Pueblo Religion* (School for Advanced Research, 2013), critically examines how secular understandings of “religion” have structured archaeological accounts of non-modern Indigenous communities. Alongside Barbara Mills, I also co-edited *The Oxford Handbook of Southwest Archaeology* (Oxford, 2017),

the widest-ranging consideration of the intellectual history and theoretical commitments of archaeology in the American Southwest. My current writing projects include a study of the Plains Biographic Tradition entitled *Comanche Afterimages: Visual Culture and History in Northern New Mexico*, a synthetic volume on ten thousand years of rock art production in the American Southwest entitled *Iconohistory* (co-authored with Darryl Wilkinson, Lindsay Montgomery, and Benjamin Alberti), and a volume on the history of settler colonialism in the little village of San Antonio del Embudo (under development with Chicano/a Studies scholar and poet, Levi Romero).

<https://barnard.edu/profiles/severin-fowles>

Mateja Hajdinjak

Group leader, [Max Planck Institute for Evolutionary Anthropology](#)

Mateja Hajdinjak starts a new Max Planck Research Group at the Max Planck Institute for Evolutionary Anthropology in Leipzig. Mateja completed her PhD at the Max Planck Institute for Evolutionary Anthropology in Leipzig under supervision of Matthias Meyer and Svante Pääbo, working on genome-wide data and population history of some of the last Neandertals and earliest modern humans in Eurasia. As a Marie Skłodowska Curie Individual postdoctoral fellow at the Crick, she is continuing her work on human evolutionary genomics using ancient DNA, with a special focus on ancient hunter gatherer groups in Africa and west Eurasia.

Using advanced methods to recover ancient DNA from early human and Neanderthal remains, researchers have obtained unprecedented insights into human evolutionary history. Despite the wealth of data available, genomic data from key periods, such as the early dispersal of humans from Africa, remain elusive. The newly established Max Planck Research Group for Hominin Palaeogenomics, led by geneticist Mateja Hajdinjak, aims to fill these gaps and improve our understanding of the genetic diversity and survival tactics that shaped modern humans.

Ancient DNA extracted from long-dead organisms has transformed our understanding of human evolutionary history by allowing us to study genetic variation across time and space, not just the diversity in current populations. Despite the recovery of genomic data from more than 10,000 ancient humans to date, relatively few genomes have been recovered from the period when humans first dispersed out of Africa and interacted with other hominins. These patchy genetic data from a crucial phase of our early prehistory severely limit our understanding of the disappearance of other hominins and the survival of modern humans as the only hominin group on Earth.

"To fill this gap, our group will apply cutting-edge methods developed to recover poorly preserved ancient DNA to skeletal remains of modern humans and, in particular, Neanderthals across Eurasia, focusing mainly on the period when these groups may have encountered each other," says group leader Mateja Hajdinjak. "In addition to gaining insights into the genetic variation of these groups, their interactions, local disappearance and adaptations to new

environments, studying our closest ancestors and close relatives – modern humans and Neanderthals alike – can significantly advance our understanding of what makes modern humans who we are today."

Mateja Hajdinjak received her Master's degree in Molecular Biology from the University of Zagreb, Faculty of Science, Croatia, before completing her Ph.D. at MPI-EVA and the University of Leipzig, Germany. During her Ph.D., she more than doubled the total number of Neanderthal genomes available for downstream analyses, paving the way for the reconstruction of Neanderthal genomic diversity across its geographic and temporal range. After her Ph.D., she was a Marie Skłodowska Curie postdoctoral fellow at the Francis Crick Institute in London, UK.

Max Planck Research Groups offer early career researchers who hold a doctoral degree an excellent opportunity to qualify for a further career at a high level. The heads of these groups are appointed by the President of the Max Planck Society and enjoy an independent status within the institute.

<https://www.eva.mpg.de/press/news/article/shedding-light-on-past-encounters-between-hominin-groups/>