

Laudation: Dr. Trine Kellberg Nielsen, Nineteenth Recipient of the Tübingen Prize for Early Prehistory and Quaternary Ecology

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Ladies and gentlemen, Dean Rosenstiel, representatives of Romina EiszeitQuell, dear colleagues, students, and friends of the Institute, dear Dr. Nielsen,

It is a great honor and pleasure for me to introduce you to the nineteenth laureate of the Tübingen Prize for Early Prehistory and Quaternary Ecology. In the last eighteen years, the prize has been awarded to prehistorians with focus on cultural and technological identity, human subsistence, land use, and migrations, to paleoanthropologists, geneticists, and dating specialists. Of the ten female and eight male awardees, six came from the USA, five from France, four from Germany, two from Spain and one from the



Award of the nineteenth Tübingen Prize for Early Prehistory and Quaternary Ecology on February 02, 2017, at Schloss Hohentübingen. From left to right: Prof. Dr. Katerina Harvati (jury), Yvonne Willy (EiszeitQuell, sponsor), Priv.-Doz. Dr. Miriam N. Haidle (jury), Daniel Gramer (EiszeitQuell, sponsor), Dr. Trine Kellberg Nielsen (recipient), Prof. Nicholas J. Conard Ph.D. (jury), Mima Batalovic (administration, University of Tübingen), Dr. Britt M. Starkovich, Prof. Dr. Michael Bolus, Prof. Dr. Harald Floss, Prof. Dr. Christopher Miller (all jury). Photo: Friedhelm Albrecht, © Universität Tübingen.

UK. This year's laureate fits well into that long line of promising young academics, many of whom now hold good positions, determine the international research agenda, and support young academics themselves. Every year in late November, the jury faces thousands of pages of dissertations to be read by several referees, discussed in a number of meetings, and evaluated. Every year, the decision is not an easy one. At this point I want to thank explicitly all applicants, because it is the sum of their interesting subjects, very good research, and fascinating results that constitute the renown and importance of the Tübingen Prize for Early Prehistory and Quaternary Ecology. Today it is my honor to present to you, on behalf of the jury and our sponsor Romina EiszeitQuell, this year's winner of the award, Dr. Trine Kellberg Nielsen. It is a special pleasure to me, as I have known Trine since her undergraduate studies at Aarhus Universitet.

Trine Kellberg Nielsen was born with a twin sister in 1984 in Aarhus, Denmark. She began her studies at the Institut for Antropologi, Arkæologi og Lingvistik at Aarhus Universitet in 2005 and earned her B.A. in 2008. She then moved to the Department of Human Origins at Leiden University in the Netherlands where she finished her master's studies in 2011 with a thesis on "Isotopia – Isotopic ($\delta^{13}\text{C}$ & $\delta^{15}\text{N}$) variations along the terrestrial food-chain in the late Pleistocene and early Holocene in North-western Europe: Implications for paleo-dietary reconstructions". Knowledge of technological as well as scientific approaches to prehistory and experience as a field archaeologist helped her to set up and successfully conduct her Ph.D. project, which she defended on October 21, 2016 at Aarhus Universitet. The thesis on "Northern Neanderthals – A systematic assessment of pre-modern human colonisation of southern Scandinavia" was rated with a *summa cum laude*. Dr. Nielsen is currently a postdoctoral fellow at the Centre for Biocultural History at the Institut for Kultur og Samfund at Aarhus where she is preparing a field season for summer 2017 at Schalkholz, Schleswig-Holstein to verify the northernmost site with potential for stratified Neanderthal evidence, a follow-up project of her Ph.D. research.

Trine Kellberg Nielsen's CV shows a wide range of activities that contributed to the formation of a researcher with a broad, international and interdisciplinary view. Before and during her Ph.D. studies, Dr. Nielsen worked as research assistant at the University of Oxford, Leiden University, VU Amsterdam University, and the University of Aarhus. She was a guest of the Research Center "The Role of Culture in Early Expansions of Humans" in 2015, participated in excavations of the "Paleoanthropology at the Gates of Europe" project in Greece, and worked as field archaeologist and excavation manager for several Danish museums. Trine Kellberg Nielsen has been very active in presenting her work at international conferences and also disseminates her approaches in teaching projects for students and to the interested public. She is first author and co-author of several articles in Danish volumes and international, high-ranking journals such as *Journal of Biogeography*, *Quaternary International*, *Archaeological and Anthropological Sciences*, *Journal of Human Evolution*, and the *Proceedings of the National Academy of Sciences of the United States of America*.

At the center of the award of the Tübingen Prize for Early Prehistory and Quaternary Ecology is Dr. Nielsen's doctoral dissertation on "Northern Neanderthals – A systematic assessment of pre-modern human colonisation of southern Scandinavia" supervised by Prof. Dr. Felix Riede from Aarhus Universitet and Prof. Dr. Wil Roebroeks from the

University of Leiden. When I first heard about the project I showed the typical spontaneous reaction of a central European prehistorian. What could she work on and write about? There is sufficient evidence that modern humans migrated into Scandinavia right after the retreat of the Scandinavian ice sheet following the Last Glacial Maximum. But has there been human settlement in an earlier interglacial? Or to say it in Dr. Nielsen's own words: "What is the cause of the lack of Pleistocene archaeological evidence from southern Scandinavia? Is it direct evidence of a lack of early hominin occupation, or have other factors played a significant role in shaping the current archaeological signal?"

The thesis reads like a detective story, but it is not a simple whodunit. The suspects are clear from the beginning: Neanderthals. Rumors come up now and then about them having settled southern Scandinavia. There *are* a few finds that have been addressed as having a Neanderthal origin. There is a long and cyclical research history in Scandinavia, often and on-and-off, initiated by amateurs longing for a deep past. On the basis of single, mostly chance finds of stone tools which resemble Mousterian bifacial tools, heated debates started between amateur supporters and professional opponents. In the terms of a detective story: The police didn't want to open a case, but the rumors wouldn't stop. Trine Kellberg Nielsen depicts the waves of arguments in an exemplary way showing the role that research history played on the largely lacking Pleistocene research record of southern Scandinavia. She sets up a systematic research agenda for the Eemian interglacial starting with an assessment of the biogeographical requirements of Neanderthals and a comparison with the southern Scandinavian conditions. In other words: Have the suspects be seen in similar situations, or is their presence in southern Scandinavia completely unlikely? Examinations of the paleoenvironmental and paleogeographical signals from southern Scandinavia assess times of opportunity for hominin dispersals and answer the question of whether the suspects had any opportunities at all. The scene of the possible case has been cleaned in later times by huge masses of ice that covered and changed the underlying landscape. So Dr. Nielsen asks if the geological situation in southern Scandinavia allows for the preservation, recognition and exposure of Pleistocene archaeological material.

And then the small pieces of evidence are put on the table again and tested: first morphologically, if the stone tools can be exclusively attributed to a Neanderthal origin, or if they only resemble Mousterian handaxes and are of Holocene origin. Second, their context was checked for the possibility of revealing finds from the Eemian interglacial. Yet, Trine Kellberg Nielsen didn't stop with viewing the old evidence in a new light; instead, she developed renewed find-procurement strategies to improve and add to the current body of empirical evidence. Based, for example, on the national borehole database of Denmark she looked for remnants of the Pleistocene landscape and their archaeological potential. The map resulting from triangulating geological deposits, landscape features and places of exposures represents a starting point for further research. Beside the study of private collections and examination at potential sites, Dr. Nielsen trained several groups of volunteers and organized field surveys – however, these have not yet yielded unquestionable evidence of a Neanderthal occupation of Southern Scandinavia. This region was at the most a sporadically visited, marginal habitat. So the case seems to have been no case at all. But it is the great merit of Dr. Nielsen's work to bring a very emotional argument between amateur and professional archaeologists to a broad scientific foundation without polemics. In doing so, she included the potentials of both groups

to approach the basic question in a fruitful way. In the terms of our detective story, she re-established cooperation in the community. In terms of scientific relevance, I would like to cite the review of her thesis: “Trine Kellberg Nielsen has established a research template for the archaeological investigation of Pleistocene hominin dispersals into extreme environments that will undoubtedly be useful not only for the study of the possible occupation of southern Scandinavia in the Middle and Upper Palaeolithic, but also for all those aiming to investigate short-lived, seasonal or episodic prehistoric dispersals.”

Ladies and gentlemen, I hope that this brief introduction has aroused your interest in Trine Kellberg Nielsen’s research and its significance for human migration studies. It is my pleasure to introduce our guest of honor, Dr. Trine Kellberg Nielsen, who will give us a much more in depth presentation of her work. On behalf of the jury and our sponsor, the Romina EiszeitQuell, I would like to express our affectionate congratulation and present to you the 19th winner of the Tübingen Prize for Early Prehistory and Quaternary Ecology, Dr. Trine Kellberg Nielsen!