Editorial

The interdisciplinary research of ROOTS continues to thrive, showcasing our steadfast commitment to reconstruct past human-environment connectivity. Recent scientific developments and achievements underscore this dedication, manifested through diverse initiatives, including fieldwork activities, international collaborations, and the publication of ground-breaking research.

Ongoing fieldwork studies, both in Germany and abroad, continue to document compelling finds and reaffirm that international cooperation remains a pivotal pillar of ROOTS endeavours. These collaborative efforts do not only contribute to an ever-expanding repository of valuable findings but also highlight the significance of fostering global partnerships to advance our collective understanding of human-environment interactions.

This is also evident through the multitude of publications generated by ROOTS members in recent months. The selected examples presented here provide a snapshot of the rich and varied research conducted within ROOTS. The publications cover a wide range of topics, from studies that establish connections between climate and early human societies to reflections on diverse portrayals of human beings.

Furthermore, there have been notable additions to the teams within ROOTS. In particular, the ROOTS community can now count on the valuable support of Katarzyna Friedrich-Fil to ensure that we foster creative research outcomes within an inclusive and equitable workspace. With her expertise and input, we are poised to implement pioneering initiatives addressing equality, equal opportunities, and diversity matters. The accomplishments of Kieler Archaeology have earned notable recognition, propelling Kiel University into the prestigious ranks of the top 15 most influential institutions in the field of archaeology. This remarkable success underscores the institution’s substantial contributions to the advancement of archaeological knowledge on a worldwide scale, vividly demonstrating the yield of the Excellence Initiative. This achievement serves as an additional impetus while we transition to the preparatory phase of ROOTS 2.

As ROOTS enters a pivotal phase, culminating five years of dedicated research and activities, the time has come to reap the rewards of our endeavors. With their unwavering dedication and commitment to interdisciplinary collaboration, ROOTS members are set to make significant strides in advancing our understanding of the past in the months ahead. This is especially pertinent as we actively pursue the extension of our cluster initiative beyond 2025.

In light of the tension the world is increasingly experiencing, we fervently wish for a peaceful holiday season and extend warm regards and wish everyone a joyful and restful break, looking forward to a successful and peaceful start for 2024!

Johannes Müller, Speaker of ROOTS
Archaeology in Kiel ranks among the best worldwide

The QS World University Ranking is one of the most widely used and therefore most influential rankings of academic institutions worldwide. In the 2023 report, Kiel University now ranks 14th in the field of archaeology, a top global position. “This is a huge success and owes much to the upswing in archaeological research and training, in particular through the ROOTS Cluster of Excellence and the CRC 1266 ‘Scales of Transformation – Human-Environmental Interaction in Prehistoric and Archaic Societies’, both of which have a strong interdisciplinary focus,” states ROOTS speaker Johannes Müller.

The positive ranking demonstrates the fruits of the Excellence Initiative. Müller continues: “Originally, the initiative was designed to make German universities internationally competitive. In the field of archaeology, this has obviously been successful at Kiel University.” Archaeology at Kiel University has continuously improved in the subject evaluations of the QS World University Rankings in recent years. “We have successfully internationalised archaeological research from Kiel. This and the expansion of natural science archaeology has certainly contributed to this trend and current success,” says Müller.

State politicians engage with ROOTS research

On 25 July 2023, Guido Wendt, State Secretary at Schleswig-Holstein’s Ministry of Education, Science, Research and Culture, visited ROOTS. Speaker Johannes Müller and scientists from the various disciplines represented in ROOTS gave a comprehensive overview of their activities and presented latest results during the more than two-hour meeting. Wendt was impressed by the close cooperation of the experts from the humanities, natural sciences and life sciences who are jointly researching the human past. Regarding the future, the discussion also dealt with the application for a second phase of ROOTS. Just two weeks later, Schleswig-Holstein’s Minister for Education, Science, Research and Culture, Karin Prien, visited the Nordstrand Peninsula to learn about the latest results of archaeological research in the Wadden Sea, which ROOTS is strongly supporting in terms of personnel, funding and technology. The results contribute significantly to the issues addressed by the Hazard Subcluster.

“These visits are a good signal that the Federal State of Schleswig-Holstein is aware of the importance of our research. We are grateful for the intensive exchange and the support we receive from the Ministry,” says Johannes Müller.
**New studies: Connectivity between climate and early human societies**

The introduction of agriculture and first metal processing are milestones of innovations in human history. Scientists have long been investigating the role that demographic development and environmental influences played in these processes. Recently, two studies funded by ROOTS were published that deal with the role of climate change in shaping these processes. One paper by Ralph Großmann, Mara Weinelt and Johannes Müller published in *PLOS ONE* focuses on three regions of Central Europe from 3500 to 1500 BCE. A study carried out by Magdalena Bunbury during her time as a ROOTS postdoc together with Mara Weinelt, Jutta Kneisel and colleagues from Stavanger, Oslo and Tromsø (Norway) focuses on Scandinavia and Northern Germany from 4100 to 1100 BCE. Based on extensive data analysis, both studies show clear connectivity between demography and climate variabilities. The consideration of actual archaeological finds additionally reveals adaptation strategies of early societies to environmental changes. “Even though the climate was certainly not the sole cause of all societal developments, both studies demonstrate that these early societies under very different environments were responsive to climate change,” summarises Mara Weinelt.

![Image showing three regions of Central Europe](https://doi.org/10.1371/journal.pone.0291956)

**New insights into the connectivity between environment and language development**

Languages can reveal a lot about the societies that use them. But what factors play a role in the development of languages? Together with Chinese colleagues, ROOTS linguist Søren Wichmann has published a study in the online journal *PNAS Nexus* that demonstrates that average environmental temperatures influence the average loudness of languages. However, exceptions show that this adaption to environmental conditions takes centuries or even millennia. “For a long time, linguistic research assumed that linguistic structures are not influenced in any way by the social or natural environment. More recent studies, including ours, are beginning to question this,” says Søren Wichmann. Studies like this could also provide new insights into past societies, including the movements of human groups over past millennia. “If languages adapt to the environment in a slow process that takes thousands of years, then they carry some clues about the environment of their predecessor languages,” he states.

![Image showing the language family with the lowest sonority](https://doi.org/10.1093/pnasnexus/pgad384)
**People**

*Katarzyna Friedrich-Fil starts as ROOTS Equal Opportunity Commissioner*

ROOTS aims to provide an inclusive and equitable working environment where all employees, members and partners are valued and supported. On 1 November, Katarzyna Friedrich-Fil started working in the ROOTS office as an Equal Opportunity Commissioner to support us in further developing what we have already accomplished in this regard and to sustainably integrate achievements into our day-to-day work. In the last years, she has been assisting numerous universities and organisations in implementing measures related to equality, equal opportunities, and diversity issues. “I am now excited to bring this expertise to ROOTS,” Katarzyna Friedrich-Fil says. One of her tasks is to act as a trusted advisor in the event of conflict or difficult circumstances in the workplace. Counselling takes place either in person or online; it is confidential, anonymous and in a protected space if desired.

"For me, equity and diversity refer to the recognition and appreciation of individual differences among individuals and people. Diversity broadens horizons and fosters yet more creative research results and innovation. Therefore, diversity is a prerequisite for excellent research,” Katarzyna Friedrich-Fil emphasises.

*If you want to contact Katarzyna Friedrich-Fil, her office is in Leibnizstr. 3, room 131, email: kfriedrich-fil@roots.uni-kiel.de*

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**Eileen Eckmeier is new co-speaker of ROOTS**

Wolfgang Rabbel’s work has been pivotal in developing new methods and fostering interdisciplinary research at the intersection of geophysics and archaeology at Kiel University. On 1 October, the renowned geophysicist retired – at least officially. His position as co-speaker of ROOTS was taken over, in accordance with the vote of the ROOTS General Assembly, by geoarchaeologist Eileen Eckmeier.

Eileen Eckmeier is professor for Geoarchaeology and Environmental Hazards at the Institute for Ecosystem Research of Kiel University. She joined ROOTS in April 2021. In addition to her new role as deputy speaker of ROOTS, she is also speaker of the Hazard Subcluster and deputy speaker of the ROOTS Technical Platform. “The new task is definitely a challenge, in particular with regard to the application for the second phase of ROOTS. But I am looking forward to contributing to the further development of this highly inspiring research network,” Eileen Eckmeier says.

Eileen Eckmeier takes over the office of ROOTS Co-Speaker from Wolfgang Rabbel.

Wolfgang Rabbel was officially bid farewell during a well-attended one-day symposium on 27 October. Friends and colleagues honoured his scientific achievements and reported on joint expeditions, excursions and field work activities of the last four decades.
Fascinating finds during the excavation of a Late Neolithic settlement in Serbia

In October, a German-Serbian team investigated the Late Neolithic site of Žabalj (Serbia).

Together with colleagues from the Museum of Vojvodina and the Serbian National Museum, a team from the ROOTS Cluster investigated the Late Neolithic site of Žabalj in North Serbia in October. The site can be attributed to the archaeological Vinča culture that marks the end of the Neolithic and the transition to the Copper Age in parts of Southeastern Europe. In addition to the exceptional find of a two-headed figurine and a high-quality pottery assemblage, the campaign uncovered the remains of a well-preserved house and other buildings. “We were able to identify at least three, if not four settlement layers,” says Martin Furholt. Organic material from some of these settlement layers will be dated in the Leibniz Laboratory (Kiel) to analyse the chronology of the site.

“Our fieldwork was exceptionally successful. We now have a large amount of material with which we can improve our picture of social inequalities and the divergent access to skills and knowledge on a site level. Our next step is to gain more data from contemporary sites in the region, which we investigated over the last years. By comparing these sites, we aim to note possible differences in access to resources, skills and knowledge,” concludes ROOTS PhD candidate Fynn Wilkes.

Long-term utilisation of Roman imperial architecture in the Levantine region

A monumental building complex, including a Corinthian peristyle measuring around 54 x 45 metres, an unusual octagonal vestibule, and several once magnificently furnished room units, was probably one of the most ambitious building projects in the Roman imperial city of Gadara in what is now Northwest Jordan. In September 2023, ROOTS member Patric-Alexander Kreuz, in cooperation with the German Protestant Institute for Classical Studies of the Holy Land in Amman, investigated this 2nd century CE complex, which had already been the subject of preliminary work in 2022. The fieldwork was supported with funding from the Urban ROOTS Subcluster.

During the investigations, the team was able to identify subsequent uses of the building complex dating up to the Middle Islamic period in the context of Roman architecture. The findings provide a fascinating picture of the cross-epochal use of an urban space that was ultimately characterised by Roman imperial architecture. On the basis of this work, a more comprehensive research project will now focus on the site and its urban surroundings against the background of the changing urban culture of the Levant region from Roman to Islamic times.

The monumental complex from the Roman imperial era continued to be used and reused well into the Islamic period.
Is man man’s wolf?

Are humans “inherently good”, as Jean-Jacques Rousseau wrote, or do we behave in a fundamentally predatory manner towards other human beings, as the phrase “homo homini lupus” (man is man’s wolf) suggests? Anyone who scientifically studies the past of humankind encounters – reflected and unreflected – very different images of human beings. A new volume titled: Homo homini lupus est? Menschenbilder und das Fremde: Interaktion und Wahrnehmung critically examines and discusses concrete examples of images of humans. The publication is based on a symposium with the same title that was organised by ROOTS PhD students at Kiel University in September 2021. It was the first project of the Cluster of Excellence to be organised and managed entirely by PhD researchers.

https://doi.org/10.23797/9783529093265

Imaginations of the Western European City from Antiquity to the Middle Ages

The city is one of the central factors that shaped human existence in the pre-modern era. It is a component of historical reality and at the same time an object of cultural knowledge. Accordingly, the city in pre-modern epochs is negotiated in various media formats that bear witness to the cultural and social imaginaries that were associated with the city. These imaginations of the pre-modern city are addressed in the recently published volume: Mentale Konzepte der Stadt in Bild und Textmedien der Vormoderne, edited by Margit Dahm and Timo Felber. This publication brings together contributions from different academic disciplines that are dedicated to mental concepts, i.e. notions, ideas or imaginings of the western European city. The edited book is the third volume of the ROOTS Studies scholarly book series.

https://doi.org/10.59641/7xb7940z

Urban Design: Cities in Past, Present, and Future

Increasingly more people worldwide are living in cities. By the year 2050, it is projected that two-thirds of the global population will reside in urban areas. Living closely together in relatively small spaces offers many advantages. At the same time, however, cities are also focal points of crises, including climate change, pandemics, or armed conflicts. Against this backdrop, experts from the fields of archaeology, history, linguistics, medicine, biology, computer science, and architecture have examined the design of cities from ancient times to the present and into the future. The results have now been published as part of the ROOTS Booklet Series. The new booklet, titled: Urban Design: Cities in Past, Present and Future, edited by Annette Haug and Philipp Kobusch, is available as a printed edition or as a free download in both German and English.

German: https://www.sidestone.com/books/urban-design-staedte-in-vergangenheit-gegenwart-und-zukunft
ROOTS at the Science Day in Kiel

How can settlements from the past be studied on a large scale without completely excavating their remains? What archaeological traces were left by conflicts in the past? What do we know about funerary customs in the Stone Age, or agriculture in the Bronze Age? All these questions were answered by ROOTS researchers during the Science Day in the KielRegion on 29 September. Numerous visitors took the opportunity to find out about current research and methods in archaeology as well as its related disciplines at the Cluster’s stand in the Wissenschaftszentrum and during a “Science Show” with four ROOTS doctoral students.

“Science Day 2023 has been a great success for us. We counted more than 14,000 visitors at our 12 locations,” explains Thomas Ehlert, project manager for the Science Day in the KielRegion. An assessment that is shared by the ROOTS team. “Of course, not all of these visitors were at the Wissenschaftszentrum, where our activities were concentrated. But from 3 p.m. to 9 p.m. our stand was very well attended,” emphasizes Andrea Ricci, the scientific coordinator responsible for public relations at ROOTS. “This proves that there is a lot of interest in our research,” he adds.

ROOTS doctoral student performed at the 100th Kiel Science Show

Why are conflicts a delicate matter in archaeology? ROOTS PhD candidate Anna K. Loy answered this question in an entertaining way during the 100th and so far largest Kiel Science Show that took place on 8 November at the event location ‘Die Pumpe’ in Kiel. During the course of the evening, another seven doctoral candidates from Kiel University also explained what, how and why they do research. The Science Show has been established as a fixed item on Kiel University’s public relations program since 2011. Young scientists present excerpts from their research in 10-minute talks and thus appeal to a broad audience, including non-scientists beyond the lecture halls of the university. Previous highlights include events at Kiel Week, during the Night of the Profs or during Science Day (see above).

https://www.scienceshow.uni-kiel.de/de/ueber-die-schience-show

Anna Loy presents her research in “Die Pumpe”.

Outside the ‘Wissenschaftszentrum’, equipment for geophysical survey attracted visitors until late in the evening. Inside, Anna Loy, Sarah Bockmeyer, Ginevra Bellini, and Fiona Walker-Friedrichs presented their research in a “ROOTS Science Show” (left: Ulf Evert from the Graduate Center at Kiel University).
Upcoming Event:

ROOTS Retreat with advisory board
11-12 January 2024
Maritim Hotel Bellevue Kiel
Bismarckallee 2, 24105 Kiel

Biweekly Colloquia:

“The Linearization and Historicization of Temporality and the Deification of the Dead”
Koji Mizoguchi - Kyushu University
08 January 2024
from 04:15 p.m. to 05:45 p.m.
Olshausenstraße 40, R. 13

“Climate and human induced changes to floristic diversity in Europe since the last ice age”
Thomas Giesecke - Utrecht University
22 January 2024
from 04:15 p.m. to 05:45 p.m.
Olshausenstraße 40, R. 13

ROOTS Seminar Series

with Anna-Theres Andersen
23 January 2024
from 12:15 p.m. to 01:15 p.m.
Olshausenstraße 80a - conference room

with Eva Stuckenbrock
13 February 2024
from 12:15 p.m. to 01:15 p.m.
Olshausenstraße 80a - conference room

CONTACT
Speaker: Prof. Dr. Johannes Müller
johannes.mueller@ufg.uni-kiel.de

Scientific Coordinators:
Dr. Andrea Ricci, PD Dr. Mara Weinelt
office@roots.uni-kiel.de

ADDRESS
Cluster of Excellence ROOTS
Kiel University
Leibnizstr. 3
24118 Kiel, Germany
www.cluster-roots.org

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