**Editorial**

The SARS-CoV-2 pandemic has marked the past months with dramatic changes in our daily lives. The virus has brought incredible tragedy and loss with it, deeply affecting our lives on a personal level. At the same time, the current situation has created novel opportunities to experiment with new forms of scientific connectivity with colleagues across the world. For many of us, this has meant transitioning to increasingly digital work spaces, in which virtual meetings and home office are now part of our common experience. Participation in forums, meetings, and international conferences has become more flexible through these digital connections. This has also meant finding new ways to be resilient as the pandemic continues to reshape our lives.

In ROOTS, we have also been experimenting with new modes of interaction and exploring new formats in order to conduct research, to interact with colleagues here in Kiel and abroad, and to contribute to public discourses. The Cluster retreat in June was conducted entirely online with more than 80 participants. Lively discussions were possible in spite of the physical distance separating the participants and the members of the Advisory Board, who provided precious feedback to direct our cluster into its next phase.

In the meanwhile, the members of ROOTS have continued to progress on the study of past social, environmental, and cultural connectivity. Among other activities, numerous conferences, workshops and meetings were held virtually, results of ROOTS scientific research were prepared and have been released in different publication formats, and new research grants were awarded. Furthermore, while a large part of public life and research all over the world has been suspended by the pandemic, ROOTS members were able to conduct fieldwork activities in Germany and abroad as illustrated in this issue of the ROOTS newsletter. Over the last few months, we have welcomed new members, who have joined the cluster. New research strands have opened, bridging different subclusters’ theoretical and methodological approaches and research interests in order to address wider questions on human-environmental connectivity.

The Cluster of Excellence ROOTS is now entering its third year since commencement. This is a crucial phase for the success of our cluster. In the New Year, we look forward to continued excellent research and will strive to adapt to the changing conditions of the pandemic. We are hopeful that 2021 will bring new light, marking a positive turn in the course of the pandemic as a vaccine becomes available, and we can increasingly return to meeting each other in person again and travel to both near and far locations to conduct cutting-edge research within the framework of ROOTS.

Johannes Müller, Speaker of ROOTS
In the framework of ROOTS, a group of researchers from the fields of archaeobotany, archaeology, ancient DNA and molecular evolutionary biology reconstructs and studies the history of the domestication of rye. For this study, the starting primary material is “Wellerholz” from medieval and early modern half-timbered houses. First investigations on the genetic code of the plant remains are being carried out in order to understand how rye developed from an undesirable weed to the most sought-after medieval bread cereal. The breeding of frost-hardy varieties, for example, plays an important role in winter cereal farming. This research is dependent on the support of owners of traditional half-timbered houses, who could provide us with research material. Are you planning to renovate your traditional timbered house? Are you interested in contributing to the cultural plant history of your region in Germany or abroad? We invite you to support us by providing a small sample of the original insulation of your house: every type of “Wellerholz” is welcome!

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**Biweekly Colloquia: “From Practice to Transformation in Pre- and Protohistory”**

Organised by the Cluster of Excellence ROOTS and the CRC 1266, the lectures by international invited experts continue during this winter semester on a biweekly basis on Mondays at 16:15 p.m. Due to the SARS-CoV-2 pandemic, the Biweekly Colloquia are held virtually. If you would like to attend the Biweekly Colloquia, please contact us for the Zoom access information.

**REMAINING BIWEEKLY DATES DURING THE WINTER TERM:**
(Mondays 16:15-17:45 h)

11 Jan: Mary Anne Tafuri, Sapienza University of Rome
“The Lesser Grains. Millet Consumption in Prehistoric Italy”

25 Jan: Anna-Kaisa Salmi, University of Oulu
“Domestication in Action – On the Archaeology of Human-Reindeer Interaction”

08 Feb: Alison Sheridan, National Museums Scotland
“Making Sense of Scottish Neolithic Funerary Monuments and Practices”

For questions and web conference login details, please contact:
office@sfb1266.uni-kiel.de or
office@roots.uni-kiel.de
On 11 and 12 June 2020, the second ROOTS Retreat and the first ROOTS Advisory Board Meeting took place. With more than 80 participants, who gathered together virtually, the retreat offered the opportunity to present the wide range of projects conducted in the framework of ROOTS and to develop discourses on our general ROOTS research topics that focus on “Social, Environmental and Cultural Connectivity”. In addition to the formal presentations held especially for the Advisory Board, the retreat included the formation of individual “publication groups” in order to address interdisciplinary research topics.

Impressed by the broad interdisciplinary research agenda, the Advisory Board attests the Cluster of Excellence ROOTS an enormous potential regarding scientific impact and public outreach, and also provided precious suggestions and lines of direction to further strengthen future scientific developments within ROOTS.

The next retreat of the Cluster is foreseen for the second half of 2021, hopefully again within the framework of a face-to-face meeting.
Ignacio Mundo, JMA Chairholder

Ignacio Mundo is the holder of the JMA chair of the Cluster of Excellence ROOTS from November 2020 to February 2021. Ignacio comes from Argentina, where he is an Adjunct Professor in plant biology at the Faculty of Exact and Natural Sciences of the Universidad Nacional de Cuyo at Mendoza as well as an Adjunct Researcher of CONICET (National Scientific and Technical Research Council of Argentina) at the dendrochronology lab IANIGLA (Argentinean Institute of Snow, Glaciers and Environmental Sciences).
He is interested in studying fire regimes related to human influence and climate variability and their consequences for forest dynamics. In particular, he is an expert of dendrochronological techniques that are implemented to investigate disturbances in Patagonian forests of Southern Argentina. Furthermore, he participated in regional reconstructions of temperature, river streamflow and the Southern Annular Mode (SAM), a climate forcing that plays a major role in climate variability in the higher latitudes of South America. In parallel, he has developed novel research with archaeologists, conducting dendroarchaeological studies on sixteenth and nineteenth century shipwrecks that sunk along the coast of Argentina.
As a JMA chairholder, Ignacio will offer classes on dendrochronology for PhD candidates and he will collaborate in research activities within the Subcluster ‘ROOTS of Socio-Environmental Hazards’.

Bienvenido y buen trabajo, Ignacio!

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JMA CHAIRS (GUEST PROFESSORSHIPS)

Within ROOTS, additional expertise and exchange are provided by a dense network of international partners and, in particular, are enhanced through the so-called JMA Chairs, i.e. professorships that are temporarily occupied by international experts. The JMA chairholders both benefit from and contribute to the ROOTS research environment by conducting their own research as well as by supporting ROOTS researchers, thus inspiring new interdisciplinary lines of research. This guarantees the transfer of expertise, which is topically bundled by the six ROOTS subclusters, cross-sectional workgroups, advanced training, and in ROOTS laboratories.
Mountains, mires, metal pollution: investigating past sulphidic ore mining in the Arlberg Alps

In summer 2020, a team led by Clemens von Scheffer, who is a member of the ROOTS Subcluster Hazards, conducted investigations of mires close to St. Christoph am Arlberg in the Verwall area, at ca. 2000 m elevation in the Austrian Alps. Here evidence of mining operations for ores rich in zinc, lead, arsenic and iron date from the end of the Middle Ages until the beginning of the last century. Yet still today, disintegrating stone buildings, shafts, bud- dle pits, bare mine dumps and thriving Silene rupestris – a heavy metal indicator plant – bear witness to the operations. The Kiel team was able to take several core profiles in direct proximity of the old mines. Back home, the process of drawing secrets from the old wounds of the murky depths of these mountain peatlands has started and will provide indications of episodes of heavy land use and reveal the environmental legacy of these past operations, e.g. heavy metal pollution adsorbed to humic substances and to countless tiny moss leaves.

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Ethnoarchaeology during Corona times: “Remote” fieldwork in Siberia and “hands on” research on Sami reindeer herding in Finland

At the end of July 2020, PhD candidate Morgan Windle of the ‘Dietary ROOTS’ subcluster was able to participate in an exciting field expedition with colleagues from the University of Oulu to Kilpisjärvi in the Lapland region of Finland. The major aim of this fieldwork was to understand the status of reindeer herding in Lapland. Morgan was especially interested in learning from the local Sami reindeer herders, who grew up in mobile families and provided insights into the old Sami herding strategies. In the meanwhile, Russian partners were able to carry out an expedition to the Taz Selkup communities on the lower course of the Pokal’ky River in the forest zone of Western Siberia. Here, families continue to practice mobile hunter-fisher lifeways and incorporate small-scale reindeer herding in their subsistence economy for transport purposes. Aleksandr Kenig and his team documented processes of the integration of reindeer husbandry in an economic system otherwise based on foraging. Moreover, they additionally recorded known archaeological and ethnographic sites. These two combined investigations provide Morgan with the opportunity to understand the potential differences between human-reindeer systems within a more global perspective.

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Fieldwork and Activities

**Georadar investigations at the Casa del Citarista in Pompeii**

In September 2020 within the framework of the ‘Urban ROOTS’ subcluster activities, a team from the Applied Geophysics group of Kiel University investigated the different areas of the Casa del Citarista in Pompeii (Italy) by means of radar technology (GPR). The aim of this study is to investigate earlier buildings covered by the extensions of the Casa del Citarista, which occupied large parts of the city block in its last construction phase.

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or Prof. Dr. Wolfgang Rabbel wolfgang.rabbel@ifg.uni-kiel.de

**The Wadden Sea Project starts geophysical investigations**

The Wadden Sea Project, as part of the ‘ROOTS of Socio-Environmental Hazards’ subcluster, started its fieldwork in July 2020 with two short geophysical measurements near the small North Frisian island of Hallig Hooge. Without a protective dyke, the marshland of this island is open to the sea and inhabitants settle on high terps.

Applying geomagnetic gradiometry, electromagnetic induction and drone photography, the team led by Bente Majchczack documented traces of the High Medieval settlements in the tidal flats south of Hooge. Three closely connected terps show traces of buildings and rectangular graves, and possibly also a west-to-east aligned outline that may be potentially identified as a church building. Furthermore, the surroundings of the terps show dense signatures of peat quarrying. Further fieldwork activities included measurements at the on-land site of an early medieval settlement. Hooge has proven to be an excellent test area to map and analyse settlements of various periods.

For more information, please contact:
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Historical case studies on pandemics

Whether the plague, cholera or currently SARS-CoV-2: epidemics are a part of human history. Long before there were microscopes or vaccinations, societies had to develop coping strategies to withstand such crises. These are described in the brochure Distant Times so Close: Pandemics and Crises reloaded. This interdisciplinary-oriented publication, printed in German and English, contains snapshots of historical epidemics ranging from the Neolithic Age through classical antiquity and to the Middle Ages. The authors are relevant experts from a wide spectrum of disciplines represented in ROOTS. Richly illustrated articles drawn from archaeology, medical history and philosophy describe significant cases of epidemics, their origins, their developments, surprisingly diverse strategies to cope with them and, last but not least, the culturally enshrined knowledge drawn from contemporary reflections.

The articles do not provide a panacea to deal with the current pandemic, but they remind us of the strategies used by earlier cultures to deal with epidemics and/or pandemics. This compilation of a wide range of case studies makes an indispensable contribution by handling such a threat in a historically enlightened manner, in which historical experience together with modern medical knowledge must be part of an overall strategy to overcome it. This brochure initiates a new series of ROOTS historical-archaeological publications on current topics.

Original publication:

Umweltgeschichte Deutschlands (Environmental History of Germany) / Hans-Rudolf Bork

In his new book Umweltgeschichte Deutschlands (Environmental History of Germany), Hans-Rudolf Bork, member of the subcluster ‘Socio-Environmental Hazards’, illustrates the manifold relationships between people and their environment. The book consists of 260 environmental histories of Germany, spanning from the storm tides that made the occurrence of malaria in the North Sea marshes possible to the “Fridays for Future” movement.

By presenting a cross-section of the environmental history of Germany from a wide perspective, the volume implies that for people who decide to assume environmental responsibility and live in an “intact” environment, a deep understanding of the past is necessary, and thus of the diverse human-environment relationships and their driving forces. Once this has been achieved, we can turn the existing uncertainty about human impact and environmental change into confidence.

Original publication:
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Due to the current SARS-CoV-2 situation, our events might change. Please check our website for more information under www.cluster-roots.uni-kiel.de/en/calendar-events