

## EDITORIAL

### JOHANNES MÜLLER, SPEAKER OF THE GRADUATE SCHOOL

The new year in the Graduate School started with an important visit: Schleswig-Holstein's Minister of Education and Science, Professor Dr Waltraud 'Wara' Wende joined us for a discussion about the future of the Graduate School and the Johanna Mestorf Academy. The atmosphere of the meeting was vivid and inspiring and Wara Wende showed a great interest in questions related to GS research.



Photo: private

Later in January, we had a visitor from Scandinavia: Archaeologist Anne Lene Melheim, administrative officer of the cross-national Nordic Graduate School in Archaeology "Dialogues with the Past", who stayed in Kiel for several days to exchange ideas about Bronze Age research and to give us input about "DialPast". Human Development in Landscapes recently joined this cooperation of institutions from all Nordic countries, Estonia and St. Petersburg.

At the end of January, five researchers presented their approaches to ancient socio-environmental modelling at our Graduate School. We hope to fill the announced professorship in this novel field soon.

I wish all members, partners and friends of Human Development in Landscapes a productive semester break.

## NEW EXECUTIVE BOARD ELECTED



The new Executive Board of the Graduate School was elected during the Annual Plenary Meeting on December 16, 2013. The board members hold their respective positions for two years. The election was held *en bloc* and resulted in 36 affirmative votes and 2 abstentions.

Our photo shows Lutz Käppel, Hans-Rudolf Bork and Johannes Müller (back row, left to right); Almut Nebel, Ben Krause-Kyora, Ingmar Unkel and Johannes Bröcker (middle row); Welmoed Out, Jutta Kneisel, Wiebke Kirleis, Maren Biederbick, Rainer Duttmann and Walter Dörfler (front row). Not in the picture are Antonia Davidovic, Gerhard Fouquet, Annette Haug, Cheryl Makarewicz, Ralph Schneider, Mara Weinelt, Josef Wiesehöfer and student representative Artur Ribeiro.

To read more about the organizational structure of the Graduate School, visit [www.uni-kiel.de/landscapes/school/structure.shtml](http://www.uni-kiel.de/landscapes/school/structure.shtml)

## MINISTER WENDE VISITS THE GRADUATE SCHOOL

On January 7, Schleswig-Holstein's Minister of Education and Science, Professor Dr Waltraud 'Wara' Wende, visited the Graduate School Human Development in Landscapes. A group of GS members of all stages, from PhD students to Principal Investigators, and several members of the university administration welcomed her. During the 90-minute



meeting, Wende was introduced to achievements and current projects of the Graduate School. The main focus of the discussion centered on the future development of the School and the Johanna Mestorf Academy after the end of Excellence Initiative funding in 2017. The importance of such an outstanding, interdisciplinary research institution, including both social as well as natural sciences, was underlined.

Our picture shows Johannes Müller, Speaker of the Graduate School (left), explaining the features of a pottery vessel from a megalithic grave near Oldenburg to Minister Wende and to Gerhard Fouquet, President of Kiel University. The vessel was found by associated Graduate School members during an excavation.

Research highlight: PLOS ONE paper

## RECONSTRUCTING FOOD CONSUMPTION WITH FRUITS

The analysis of dietary habits – be it recent or ancient, be it of humans or animals – is a vital part of many scientific projects. Ricardo Fernandes, alumnus of the Graduate School and now a post-doctoral fellow at the Universities of Kiel and Cambridge, has developed a Bayesian mathematical model to support such analyses. The model is called Food Reconstruction Using Isotopic Transferred Signals (FRUITS). It comes as a user-friendly software that is capable of providing dietary estimates. PLOS ONE published a paper about FRUITS by Ricardo and his co-authors, Andrew R. Millard, Marek Brabec, Marie-Josée Nadeau and Pieter Grootes on February 13.



The FRUITS Logo (Copyright R. Fernandes)

"FRUITS compares isotopic, signature food groups with in consumer tissues (hair, etc.)", Ricardo chemical signatures in result of the mixing of consumed in different Bayesian statistics to consumer data, FRUITS rating the contribution of food groups."

The model has recently been applied for manifold purposes, such as to reconstruct the dietary habits of Neolithic populations in northern Germany, identify the origins of nutrients in marine food webs, and to study the origins of gut microbial community structures within mice. Ricardo regards FRUITS to be applicable to many fields of research, e.g. ecology, archaeology, forensics, or dietary physics.

FRUITS software is available via <http://sourceforge.net/projects/fruits>

## Research Spotlight

### TATTOOS AS A LANGUAGE

Nowadays, a tattoo very often provides information about the social affiliation of the bearer. While an anchor on the arm often belongs to a seafarer, a lower-back tattoo (in Germany sometimes pejoratively referred to as "Arschgeweih", in English as "tramp stamp") is often stereotypically attributed to promiscuous women of little education. But the history of such body modifications is long: "Iceman" Ötzi had some tattoos more than 5.000 years ago, and all known mummies (seven so far) of the Pazyryk culture from the 5<sup>th</sup> to 3<sup>rd</sup> century BC were tattooed before death. Graduate School PhD student Karina Iwe investigates the tattoos of these southern Siberian steppe nomads as a part of her doctoral research. She is especially interested in the animals depicted on the bodies: Ungulates, birds, cats of prey, fish and fantasy creatures. "As all mummies found so far bear tattoos, it is likely that all members of the Pazyryk culture, men and women alike, and not only members of the elite, were tattooed at a certain time in their life", archaeologist Karina says. "This would mean that tattoos were not exclusively reserved for a certain social group – but there were probably differences in quality and extent. The tattoos might be interpreted as a kind of language, giving information about the social status of the bearer: For example, the mummies identified as warriors have very similar motifs under their skin." A much debated question is whether the tattoos had a symbolic or magical meaning.

A paper by Karina about this aspect of her PhD project has recently been published in a book by Philippe Della Casa and Constanze Witt (eds.): *Tattoos and Body Modifications in Antiquity*. Zurich Studies in Archaeology 9\_2013.

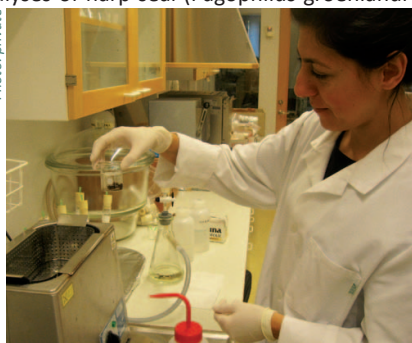
To read more about Karina's research, go to her profile on the Graduate School website: [www.uni-kiel.de/landscapes/school/people.php?pid=56](http://www.uni-kiel.de/landscapes/school/people.php?pid=56)

Further information on the book that includes Karina's paper can be obtained at the publisher's website: [www.chronos-verlag.ch](http://www.chronos-verlag.ch)

### GSHDL ALUMNI (VII): AIKATERINI GLYKOU

*Most PhD students of the first generation which started in 2008 have finished their dissertation by now and found positions in diverse fields. We keep in touch with them and trace their next steps after they leave the Graduate School. Where have they gone after their PhDs, and what are they doing there?*

Aikaterini Glykou specializes on archaeozoology and Stone Age archaeology of the Baltic Sea region. The stations of her scientific career are spatially connected with this area. After finishing her PhD studies in Kiel, she worked at the Archaeological State Museum of Schleswig-Holstein in Schleswig for a short period before being offered a post-doctoral position at the Archaeological Research Laboratory of Stockholm University. There, Aikaterini works within a project that focuses on multi-stable isotope analyses of harp seal (*Pagophilus groenlandicus*), which no longer lives in the Baltic Sea, but was particularly evident at numerous prehistoric coastal settlement sites during the Mid-Holocene. "The occurrence of this cold-adapted species during a warm climate phase in this region has led to controversy in interpretations on why it was present and why it disappeared", states Aikaterini. To solve



Aikaterini Glykou finished her dissertation at the Graduate School in 2011. Now she works at Stockholm University.

this Mid- and Late Holocene issue of the Baltic Sea, the researchers in Stockholm plan a systematic interdisciplinary study on the exploitation patterns of seals, in particular harp seals and grey seals, by applying up-to-date archaeological, geochemical, and archaeozoological methods. "Our two main research objectives are the reconstruction of the palaeohabitat of grey and harp seals and the exploration of the palaeoeconomical significance of seal exploitation", Aikaterini explains. She feels well-prepared for this undertaking: "Thanks to the educational program at the Graduate School – especially in environmental archaeology – I became acquainted with a broad spectrum of knowledge and specific expertise, and I was trained on how to address scientific objectives by applying the most appropriate natural scientific methods. It was a valuable experience to work on an inter- and multidisciplinary basis, and to coordinate a project which requires intentness and multi-tasking management skills."

### RE-MAKES OF NEOLITHIC POTTERY

A hands-on approach to ancient vessels and beakers: In a course organized by Jutta Kneisel and the adult education centre, students of the Institute of Pre- and Protohistory were given the opportunity on January 10 -11 to do pottery inspired by the forms used in ancient societies from the Neolithic to the Iron Age. Assisted by ceramicists Susanne



Koch and Julia Hartmann, the students, joined by course participants from the adult education centre, received an introduction to potting techniques and then started to form their own objects. "It is remarkable

how quickly they learned to make the forms they intended, even though most of them never made pottery before", reports Jutta Kneisel. "I guess that is because they all get experienced with many different vessels during their archaeological studies."

### STAFF & PERSONAL NEWS

**Ricardo Fernandes**, doctoral student of the Graduate School, passed his disputation on "Challenges, approaches, and opportunities in radiocarbon reservoir effects" on December 9<sup>th</sup>, 2013. He was awarded a "summa cum laude" (0.0).

**Andrea Ricci**, doctoral student of the Graduate School, passed his disputation on "An Archaeological Landscape Study of the Birecik-Carchemish Region (Middle Euphrates River Valley) during the 5<sup>th</sup>, 4<sup>th</sup> and 3<sup>rd</sup> Millennium BC" on December 10<sup>th</sup>, 2013. He was awarded a "magna cum laude" (1.0).

**Nicole Taylor**, associated doctoral student of the Graduate School, passed her disputation on "Visualisation in Archaeology" on November 19<sup>th</sup>, 2013. She was awarded a "magna cum laude" (1.0).

**Ingmar Franz** and **Thomas Harper** recently joined the Graduate School as PhD students. They are associated with the working group of Robert Hofmann. **Felix Rösch**, whose thesis is supervised by Ulrich Müller, has joined the GS as an associated PhD student.

### SELECTED EVENTS

(COMPLETE CALENDAR: [WWW.UNI-KIEL.DE/LANDSCAPES](http://WWW.UNI-KIEL.DE/LANDSCAPES))

#### MAY

May 8-9 – Advisory Board visit