



# A CRITICAL LOOK AT THE CONCEPT OF ISOTOPIC LANDSCAPES AND ITS APPLICATION IN FUTURE BIOARCHAEOLOGICAL RESEARCH

Workshop of the DFG research-group FOR1670, „Transalpine Mobility and Cultural Transfer“, October 13-15, 2014



## Speakers

Prof. Dr. James H. Burton	Dept. of Anthropology, University of Wisconsin-Madison, USA
Prof. Dr. Stefan Hölzl	RiesKraterMuseum, Nördlingen, GER
PD Dr. Peer Kröger	Lehr- und Forschungseinheit für Datenbanksysteme, LMU, GER
Prof. Dr. Julia Lee-Thorp	Stable Light Isotope Laboratory, St Cross College, Oxford, UK
Prof. Dr. Jacqueline McKinley	Wessex Archaeology, Salisbury, UK
Prof. Dr. Cheryl Makarewicz	Institut für Vor- und Frühgeschichte, Christian-Albrechts-Universität, Kiel, GER
Dr. Christoph Mayr	Institut für Geographie, Friedrich-Alexander Universität Erlangen-Nürnberg, GER
Prof. Dr. Matthias Saurer	Paul Scherrer Institute, Ecosystem Fluxes Group, Villigen, CH
Prof. Dr. Wolfgang Schmahl	Fakultät für Geowissenschaften, Sektion Kristallographie, LMU, GER
Prof. Dr. Mark van Strydonck	Royal Institute for Cultural Heritage, Radiocarbon dating laboratory, Brussels, B
Dr. Peter Tropper	Mineralogy and Petrography, University of Innsbruck, A
Prof. Dr. Robert van Geldern	Geozentrum, Friedrich-Alexander Universität, Erlangen-Nürnberg; GER
Prof. Dr. Igor Villa	Institute of Geological Sciences, Isotope Geology, University Bern, CH
Dipl. Biol. Stefan Ziegler	Dept. of Ecology and Evolution, Goethe University Frankfurt, WWF Germany, GER

On October 13-15 the DFG research group held a three-day international and interdisciplinary workshop at the Museum Mensch und Natur in Munich. The workshop was opened by Dr. Michael Apel, director of the Museum Mensch und Natur, Prof. Dr. Barbara Conradt, vice president for research and diversity of the LMU Munich, Prof. Dr. Gisela Grupe, speaker of the research group and Prof. Dr. Friedhelm Hoffmann, speaker of the ArchaeoBioCenter, LMU.

In their individual presentations, researchers from Austria, Belgium, Germany, Great Britain, Switzerland and the USA offered stimulating, interesting and critical insights from their respective fields of expertise, for example, the contributions of anthropology and mineralogy to the study of cremated skeletal finds, and the geological and ecological perspectives as related to isotopic landscapes and data processing, as well as their benefits to the project. The participants shared the opportunity of exchanging ideas and opinions during the active post-presentation discussions and also during breaks, dinner and the pre-meeting get together.

Many thanks again to all participants for the good discussions and the pleasant atmosphere during the event!





**Prof. Dr. Jacqueline McKinley**

*Complexities of the ancient mortuary rite of cremation:  
an osteoarchaeological conundrum*

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*Bones, rocks, and flames: mineralogy and petrology  
of slags and cremated bones from ritual immolation  
sites in Tyrol*

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**Prof. Dr. Wolfgang Schmahl**

*Mineralogy of archaeological bone*

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**Prof. Dr. James H. Burton**

*Isotopic landscapes in archaeology: 'Local' versus human  $^{87}\text{Sr}/^{86}\text{Sr}$*

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**Dr. Christoph Mayr**

*Linking oxygen stable isotope records  
with archaeological results*

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**Prof. Dr. Cheryl Makarewicz**

*Zooarchaeological isoscapes and tracing the human past: Integrating faunal and stable isotopic analytical approaches*

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**Prof. Dr. Igor Villa**

*Landscapes of lead isotope ratios?  
Exclusions, inclusions, unicity, and Occam's razor*

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**Dr. Robert van Geldern**

*Hydrogen and oxygen stable isotopes in rivers – spatial and temporal variations*

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**Prof. Dr. Julia Lee-Thorp**

*The influence of relative humidity on oxygen and carbon isotopes in faunae: Implications for palaeoenvironmental reconstructions*

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*Stable oxygen isotopes in tree rings: a climate archive*

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**Managing and mining bioarchaeological data – challenges and solutions**

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