

## What's the conference about

Raw materials have had a formative influence on the history of humanity and have played an incomparable role in economic and cultural development. Their extraction has left behind traces that are still visible today. The second Milestone conference succeeded in bringing together important insights on the topic of mining landscapes (see *Metalla* 20.2, 2013). In this year's final conference of the Leibniz Graduate School RITaK, the doctoral candidates present the specific developments in their respective fields of study to an international specialist audience. Together with well-known guest speakers from the local region as well as from France, England, Qatar, and the United States, they seek to answer the key questions of the Graduate School on raw materials, innovation, and technology of ancient cultures in the different regions/ study areas.

### History of the Leibniz Graduate School RITaK

2011-06-26	Kickoff meeting
2011-12-06/07	1st RITaK Milestone meeting
2012-05-29/06-01	RITaK short course „An Introduction to Ore Geology and Ore Mineralogy“
2012-10-30/31	2nd RITaK Milestone meeting
2013-10-11/12	8th HiMAT Milestone meeting/ 3rd RITaK Milestone meeting - Austria/Bischofshofen
2013-11-22/23	Interdisciplinary Workshop: Perspektiven einer ökonomischen Archäologie

### Advisory Board

Dr. Béatrice Cauuet, Toulouse  
Prof. Dr. Barbara Ottaway, Exeter  
Prof. Dr. Thilo Rehren, London  
Prof. Dr. Heiko Steuer, Freiburg



### How to get here

#### By bus & train

From Bochum Hauptbahnhof (central station), take the U 35 towards Herne. Exit at „Deutsches Bergbau-Museum“.

#### By car

A 40, exit BO-Zentrum, follow signs towards city centre (Zentrum). After about 2 km you will find the DBM on the left-hand side.

A 43, exit Bochum Riemke/Zentrum, follow signs towards city centre (Zentrum). After about 4 km you will find the DBM on the left-hand side.

### Registration

Till November 12th 2014

Please fill out the registration form on our website:  
[www.ritak-leibniz.de](http://www.ritak-leibniz.de) / [www.bergbaumuseum.de](http://www.bergbaumuseum.de)

### Contact

[petra.eisenach@bergbaumuseum.de](mailto:petra.eisenach@bergbaumuseum.de)

Deutsches Bergbau-Museum Bochum  
c/o Ruhr-Universität Bochum  
Institut für Archäologische Wissenschaften  
Am Bergbaumuseum 31 • 44787 Bochum



## Resources, Innovation & Technology of Ancient Cultures

Final Conference  
of the Leibniz Graduate School RITaK

27. – 29. November 2014

Deutsches Bergbau-Museum Bochum



## THURSDAY, 27. NOVEMBER

- 12:00** Greeting  
**12:30** Thomas Stöllner • Resources, innovation, technology. Theoretical approaches to abstract concept and research content

### THEORY

- 13:00** Tim Kerig • Remarks on raw materials and on the technology of innovation  
**13:35** Arne Windler • From the Aegean Sea to the Parisian Basin. Spondylus during the process of Neolithisation  
**14:00** Coffee break  
**14:25** Constance v. Rügen • Approaching ancient techniques: From technology to bodily learning and skill  
**14:50** Joachim Görlich • Rational and relational analyses of exchange processes in the Highlands of Papua New Guinea  
**15:15** Frank Hillebrandt • The resources in practice. A new notion of materiality in sociology  
**15:35** Coffee break

### THE MEDITERRANEAN IN THE 1ST MILLENNIUM BC

- 15:55** Paul Craddock • Major lost wax casting in antiquity: Problems and alternatives  
**16:30** Thomas Schattner • Developments of mining in the Iberian Pyrite belt during the Iron Age
- 
- 18:00** Ernst Pernicka • New approaches to the provenance of Bronze Age tin  
**20:00** Fingerfood

public  
lecture



## FRIDAY, 28. NOVEMBER

- 08:30** Zofia Anna Stos-Gale • The sources and supply of silver for the Archaic Greek coinage: a re-evaluation of the lead isotope and chemical data  
**09:05** Martina Renzi • Phoenician metallurgy in the Iberian Peninsula: Integration and innovation  
**09:30** Carlos Martín Hernández • The economic and commercial infrastructure of the Phoenicians and their productive metallurgical hinterland in the Tartessian southwest  
**09:55** Coffee break  
**10:20** Sophia Nomicos • Laurion. An ancient mining landscape in the light of the archaeological evidence

### THE EARLY METAL AGES BETWEEN CENTRAL ASIA AND THE NEAR EAST

- 10:45** Thomas E. Levy • The 'Pompeii Effect' and understanding early Bronze Age copper production in the Southern Levant: New views from the Faynan district in Southern Jordan  
**11:20** Ingolf Löffler • New thoughts about Iron Age metallurgy in Faynan: A discussion  
**12:00** Lunch  
**13:30** Catherine Marro • Natural resource exploitation and subsistence strategies in Nakhchivan during the 5th-4th millennia BC  
**13:55** Barbara Helwing • The use and circulation of metals in the early state societies of Southwestern Asia  
**14:20** Michael Klaunzer • Exchange of goods and raw materials in late Chalcolithic Anatolia  
**14:45** Coffee break  
**15:10** Aydin Abar • Social aspects of production and processing in Bronze Age Oman  
**15:35** Simon Timberlake • Experimental archaeology in Bronze Age mining: Perspective and results...  
**16:00** Visitor mine /simulated shaft descent/ mining headframe  
**19:00** Dinner

Tipp

## SATURDAY, 29. NOVEMBER

- 08:30** Thomas Koch-Waldner/Barbara Viehweider • The development of prehistoric mining and its environmental implications: The example of Kitzbühel (Tyrol, Austria)  
**08:55** Alica Ventresca-Miller • Modeling Bronze Age isoscapes: Evaluating prehistoric subsistence and movement via modern biosphere sampling in Kazakhstan  
**09:20** Hande Özyarkent/Anton Gontscharov • Defining mobility and metallurgy of Bronze Age populations in Central and Eastern Kazakhstan: Multiple analyses approach on the economic issues of past  
**09:45** Coffee break

### FROM THE MIDDLE AGES BACK TO THE ROMAN IRON AGE IN CENTRAL AND NORTH EUROPE

- 10:10** Florian Téreygeol • Sectorial and societal technological transfers: mining and metallurgies between the XVth and XVIIth c.  
**10:45** Martin Straßburger • Development of particular aspects of mining from the early to the late middle ages  
**11:10** Lena Asrih • Innovations in medieval mining laws. A multidimensional view at the „Freiberger Bergrecht“  
**12:00** Lunch  
**13:30** Volker Hilberg • The access to raw materials and its impact on Scandinavia's socio-economic development in the early middle ages  
**13:55** Stephen W. Merkel • Elemental and lead isotope analysis of Viking-age silver from Hedeby: Results and conclusions  
**14:20** Christoph Schmidt • Roman metal in Germanic broochs - Fienstedt (Kr. Erfurt) and the elites in the Germania magna  
**14:45** Patrick Könnemann • Roman imports and metal recycling in the Roman Iron Age settlement Kamen-Westick (North Rhine Westphalia)  
**15:10** Coffee Break  
**15:40** Final discussion