Modern archaeology can be considered as an interdisciplinary approach that increasingly combines different methods and datasets to answer questions about ancient cultures and their remains. This trend can be traced back to the rising awareness about the inextricable link between past human activities and environmental conditions. Therefore, computer sciences, geosciences and archaeology form a scientific triad whose interface can be best described as Digital Geoarchaeology.

Having its major focus on these new technologies and multi-method research approaches, the symposium intends to promote an interdisciplinary dialogue between different disciplines such as archaeology, computer sciences, geography, geoinformatics, geodesy and history. Common fields of work as well as future challenges are to be identified and discussed from different scientific perspectives in order to generate synergies.

By stimulating knowledge transfer and collaboration, Digital Geoarchaeology wants to contribute to an effective protection of cultural heritage and a better understanding of ancient landscapes along with their forming processes.

Digital Geoarchaeology 2013 –
New Technologies for Interdisciplinary
Human-Environmental Research

Organization: DR. CHRISTOPH SIART
Geographical Institute, Heidelberg University
MARKUS FORBRIGER
Institute of Geography, University of Cologne

Venue: Akademie der Wissenschaften, Karlstr. 4, Heidelberg
Date: 7.– 9. November 2013
Beginning: 7. November 2013, 10.00 am

Registration: Attendance is free of charge but registration is mandatory as the number of participants is limited. Please use the registration form provided on the conference website or register via email: christoph.siart@geog.uni-heidelberg.de.
1.00 p.m. LUNCH  BREAK

2.00 p.m. Session II
Space Analysis and Feature Extraction (pt.II)
4 | Benjamin Völker – Detecting ancient caravan routes from satellite imagery and field observations, Egypt
5 | Volker Sossna – Theory and Practice: Experiences with a Non-Professional Database Solution under Field Conditions
6 | Hubert Märta – retrieving manmade features from high resolution 3D models with gimmigami

3.30 p.m. COFFEE BREAK

4.00 p.m. Session III
Spatial Analysis and Feature Extraction (pt.II)
7 | Elistefia Palto – Enhancing the interpretation of Roman street networks: The application of urban network analysis to integrated geophysical datasets
8 | Daniel Krüter, Lukas Lorenz, Oliver Nubrecht – Graves, pottery, and pathways of Funnel Beaker societies in relation to their natural environment
5.00 p.m. Special lecture
Heiko Riemer – Wadi Surs and the Cave of Beasts: Interdisciplinary studies on a Saharan rock art landscape

5.45 p.m. GET-TOGETHER
at Beletage of Heidelberg Academy of Sciences

7.30 p.m. CONFERENCE DINNER (optional)

THURSDAY, 7 NOVEMBER 2013

11.30 a.m. Session I
Palaeoenvironmental Reconstructions
1 | Dimitris Parapontopoulous, Berthard Höfl e, Irina Rabenseifner (ORGANIZING COMMITTEE)
2 | Matthew Ghilardi, Marc-Antoine Vella, Ousmane Diouf, Philippe Dussouillez, Jules Fleury, Estelle Senna, Michel Berthelot – Reconstructing archaeological landscapes at the Bridge of Avignon (Provence, France): the original cross-combination of digital landscapes at the Bridge of Avignon (Provence, France): the original cross-combination of digital landscapes: An approach to communicate geoarchaeological research
3 | Irina Rabenseifner, Geraldine Quènèhervèa, Michael Maerker, Volker Hochschild – Paleolake-delineation and its non-agricultural economy

9.00 a.m. Session IV
Remote Sensing and Visualization
9 | Chai Slevogt, Andreas Buttel – Detecting ancient caravan routes from satellite imagery and field observations, Egypt

10 | Karsten Lamberts, Igor Zingman – The past as seen from space: Detecting archaeological objects in high-resolution satellite images of the Silvretta Alps
11 | Uta Langerhans, C. Heinrich, Rolf Gabel-Mück, Rainer Outhmann – 3D-visualization of past dune landscapes: An approach to communicate geoarchaeological research

10.30 a.m. COFFEE BREAK & POSTER SESSION

11.30 a.m. Session V
LIDAR in Geoarchaeology
12 | Berthard Höfl e – Geoinformation extraction from 3D pointclouds – current status and future perspectives
13 | Ralf Heise – Visualising archaeological topography – current methods for analytical visualisation of high-resolution digital elevation models
15 | Felix Teichner – Ecological changes, natural disasters and economic crisis – new scenarios for the Hispanic peoples in their non-agricultural economy

16 | Katrin Theodorakopoulou, C. Athanassia, S. U. Stachnik, G. Schumacher, S. Wachter, B. Maciel, O.A. Wagner – A geoarchaeological approach for the localization of the prehistoric harbour at Akefa, Thera.
17 | Ayhı̈n Tüybaglı – Combining archaeological and geophysical methods – A case study about the Gallo-Roman settlement area of Ohlendorf (northern Saarland)
18 | Eleni Naniotou – 3-dimensional reconstruction of Early Bronze Age pyros – 3D and pseudo-3D geovisualities

4.00 p.m. COFFEE BREAK

4.30 p.m. GENERAL DISCUSSION

5.30 p.m. GUIDED CITY TOUR (optional)

SATURDAY, 9 NOVEMBER 2013)

12.00 a.m. LUNCH BREAK

2.00 p.m. Session VI
Multi-method Research Designs and Geophysical Prospecting
15 | Felix Teichner – Ecological changes, natural disasters and economic crisis – new scenarios for the Hispanic peoples in their non-agricultural economy
16 | Katrin Theodorakopoulou, C. Athanassia, S. U. Stachnik, G. Schumacher, S. Wachter, B. Maciel, O.A. Wagner – A geoarchaeological approach for the localization of the prehistoric harbour at Akefa, Thera.
17 | Ayhı̈n Tüybaglı – Combining archaeological and geophysical methods – A case study about the Gallo-Roman settlement area of Ohlendorf (northern Saarland)
18 | Eleni Naniotou – 3-dimensional reconstruction of Early Bronze Age pyros – 3D and pseudo-3D geovisualities

4.00 p.m. END OF WORKSHOP

4.30 p.m. GENERAL DISCUSSION

5.30 p.m. GUIDED CITY TOUR (optional)

Meeting place for shuttle service is at 8.15 a.m. in front of Heidelberg Academy of Sciences and Humanities.