SSH16-17 - Summer School - Advanced archaeological prospection, documentation and interpretation for cultural heritage management

Zusammenfassung

Our buried and invisible archaeological heritage is increasingly threatened by destruction, mainly due to intensive agricultural land use and industrial transformation of the landscape - a fact well known to the archaeological community but still lacking sufficient public awareness. Archaeological excavations are in their very nature destructive processes, applicable only within small parts of usually large archaeological sites. Considering the massive threat of destruction and deterioration of unique buried cultural heritage, the need for time- and cost-efficient, reliable identification, documentation and interpretation becomes apparent. Large-scale applications of non-destructive archaeological prospection and digital documentation methods harbour in this regard a great potential, providing the most appropriate solution in order to supply archaeologists and planning authorities with the necessary spatial information for the protection and possible investigation of threatened cultural heritage at the appropriate scales: the archaeological site as well as the surrounding archaeological landscape. The Vienna based Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology (LBI ArchPro) and its Austrian and European partners (academic and private research institutions in archaeology and cultural heritage management, governmental bodies, SME´s) represent a leading multi-disciplinary group in developing suitable archaeological prospection methods to highly efficient tools for the mechanically non-invasive, time- and cost-efficient detection, documentation and investigation of buried archaeology at unprecedented scale (http//:archpro.lbg.ac.at). This novel archaeological prospection approach, covering many square kilometres, rather than square metres as common with traditional methodology, results in archaeologically interpreted three-dimensional digital maps showing the spatial distribution of buried archaeology and those remains that have left traces in the topography. The generated outcome is of great value and relevance for cultural heritage management, landscape planning and archaeological research alike.

The applicants, engaged in digital humanities and the advancement of cultural heritage management propose the establishment of a multi-disciplinary summer school on “Advanced archaeological prospection, documentation and interpretation for cultural heritage management”. The term ‘multi-disciplinary’ thereby refers to the combination of digital humanities, remote sensing, geophysics, geomatics and information technology. The proposed summer school 2016 addresses the demand to educate and familiarize Austrian and European students of related fields in universally applicable noninvasive methods and techniques for the detection, documentation and interpretation of the archaeological heritage of complete landscapes. Special focus will be placed on the archaeological interpretation of remote sensing and near-surface geophysical prospection data and the potential of the generated results to facilitate and guide modern cultural heritage management, as well as
implications for rescue and exploration archaeology and policy making.

With the support of technical specialists, archaeologists and cultural heritage managers from Austria and abroad the school will cover the technical and methodological aspects of planning and executing large-scale archaeological prospection surveys. The goal of the summer school is to provide the students with an up-to-date level of knowledge in this culturally important and quickly evolving multidisciplinary field of research and its implications on cultural heritage management. Therefore the summer school will focus on the application of cutting edge non-invasive technologies in archaeology, as well as on the advancement of novel methods and approaches of integrated geospatial analysis, based on Geographical Information Systems (GIS) and archaeological data interpretation. Application examples from case

studies conducted by the LBI ArchPro throughout Europe (e.g. World Heritage Stonehenge and Birka-Hovgården, Roman Carnuntum, Viking Age landscapes of Gokstad and
Oseberg, Akrotiri on Thera, etc.) will be used for showcase scenarios, illustrating a diverse range of heritage management issues as well as respective legal settings and current policy. The showcase scenarios will focus on logistics, data acquisition, data processing, data integration, data visualization, and subsequent spatial analysis and GIS-based mapping and data interpretation. The potential and pitfalls of the advanced archaeological prospection approach will be addressed by some of the most knowledgeable international experts in the field. The proposed summer school will support the implementation of the goals of the European Convention on the Protection of the Archaeological Heritage (Valetta Convention), namely the scientific supervision of approaches to non-destructive methods of investigation, and a pooling, advancement and dissemination of experience through a compact training program.

Principal Investigator: Wolfgang Neubauer

Institution: Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology

---

Status: Abgeschlossen (01.03.2016 - 30.08.2016)

Weiterführende Links zu den beteiligten Personen und zum Projekt finden Sie unter
https://wwtf.at/funding/programmes/past/ssh/SSH16-17/