ISAP NEWS

The newsletter of the International Society for Archaeological Prospection

Contents

Editor's Note

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Welcome to the 26th rather optimistically titled 'Spring Issue' of ISAP News, my first as Editor. I would like to thank all who have contributed to this issue and hope I have done justice to the high quality of articles submitted.

You will notice some subtle changes to the layout of the ISAP News, which I hope will be to everyone's taste. Comments are welcomed to the email address above.

In this Issue:
We start with a new year's message from the IFA GeoSIG, reviewing the work of the past year, and aims for the future.

Recent research projects from Norway (Page 3) and Italy (Page 5) conducted last year provide an insight into the role of archaeological prospection in completely contrasting environments and histories, both showing the advantage of multi-instrumental methodologies

Last December's NSGG Conference on Recent Work in Archaeological Geophysics provided a fantastic opportunity to catch up with ISAP members old and new. For those not fortunate enough to make it to the event, two reviews are included, one from an organizers' perspective (Page 6), and one by current Archaeological Prospection Masters Students at the University of Bradford (Page 7).

The final article outlines the formation of the new Ludwig Boltzmann Institute in Vienna which aims to be instrumental in the advancement of Archaeological Prospection in the 21st Century.

Important Notices

Don't forget to pay your ISAP subscription for the coming year!
Payment is easy and comes at the bargain price of £7 or €10. Please make sure you visit http://www.bradford.ac.uk/acad/archsci/archprospection/renew.php or send a British Sterling cheque to Chris Leech at Geomatrix soon to keep your membership up to date!

Archaeological Prospection journal
Take advantage of the great deal offered to ISAP members by Wiley-Blackwell for this journal
http://www.bradford.ac.uk/archsci/archprospection/menu.php?2

A Happy New Year from the IFA GeoSIG

GeoSIG Committee Jimmy.Adcock@gsbprospection.com & Peter.Barker@stratascan.co.uk

This is a quick note from the committee of the UK's Institute for Archaeology (IfA) geophysics special interest group, to update people on what we were up to over the last 12 months and what we are hoping to achieve in the coming year. The group, which is open to IfA *and* non-IfA members alike, represents the interests of archaeological geophysicists to the IfA council and in the Institute's activities such as producing documents and guidelines relating to geophysical work, and promoting geophysical work constructively within the structure of archaeology. Membership numbers in 2010 stood at 190 including 25 from outside the IfA.

The main thrust of the group's work through most of 2010 was the production of the IfA 'Standards and Guidance for Geophysical Survey', which has now been adopted as a working document by the council and, subject to amendments, will become one of their official publications later this year. A copy can be found on the IfA website (www.archaeologists.net).

Another key theme for the group is to establish, where required, training and CPD for not just practitioners in archaeological geophysics but also the end-users of archaeological geophysics. To this end, the group put on a seminar in Edinburgh, in collaboration with ALGAO:Scotland, for archaeological curators. It aimed to promote the use of geophysics and help clarify how best to utilise the techniques available within developer funded archaeology in Scotland.

Looking forward, the group is keen to involve members more, increase interaction and improve the resources available to the membership by revamping the group's web pages (http://www.archaeologists.net/groups/geophysics). Any suggestions for content will be gladly accepted. As part of this improvement, we intend to publish the results of a recent survey undertaken to determine the current *modus*

operandi with regard data archiving amongst the membership. There are still a number of questions regarding the practicalities of data archiving and what is best practice for the commercial sector

compared to what is actually being done at present. A sub-committee within GeoSIG continues to work on this, liaising with other groups such as ADS and Bradford University.

Other current areas of interest and work include exploring avenues for the chartership of archaeological geophysicists, sourcing quality non-magnetic clothing and issues regarding standards and guidance in marine archaeological geophysics. We will continue to keep a close relationship with other groups including EuroGPR, EAGE and NSGG (formerly EIGG) through our joint committee representatives.

We are looking forward to a productive 2011, and wish all ISAP members a similarly fruitful year.

Surveying Prehistoric Scandinavian Boathouses and Graves: An example from Central Norway

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In the summer of 2010 the site of Gustad in Nord-Trøndelag County, Norway was surveyed with a multi method approach. This data collection created the basis for a Masters dissertation in Archaeological Prospection at the University of Bradford, UK entitled "Developing a Sequential Geophysical Survey Design for Norwegian Iron Age Settlements". The aim of the project was to investigate and evaluate the applicability of four different geophysical prospection techniques by conducting a high resolution survey with topsoil magnetic susceptibility, earth resistance, fluxgate gradiometer and ground penetrating radar on a site with known archaeology. I will in this article briefly present some of the results derived from this work.

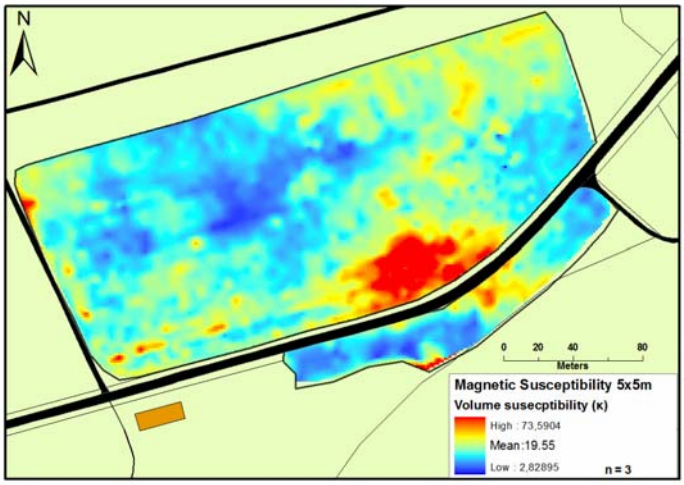

Figure 1: Topsoil Magnetic Susceptibility at Gustad.

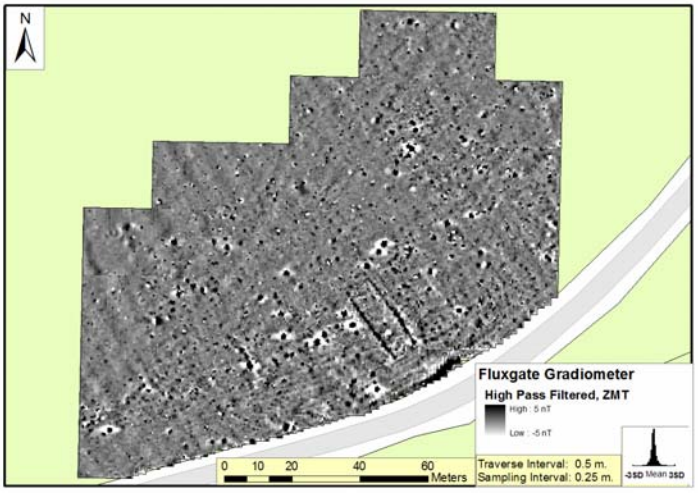

Figure 2: The Fluxgate Gradiometer results from Gustad.

The site has a research history spanning over 200 years, with old maps and antiquarian sources mentioning up to 16 burial mounds and at least two houses. No monuments are visible as topographical anomalies on the ground surface today, but aerial photos from 2007 confirmed the presence of both wall-ditches of houses, ring ditches of ploughed over burial mounds and possible pits. These, along with objects found of at the site, indicates a possible dating to around 500-1000 AD. The site is on marine deposited beach sediments which due to upheaval must have become dry land somewhere between 1-500 AD. The oldest possible date of any monuments present.

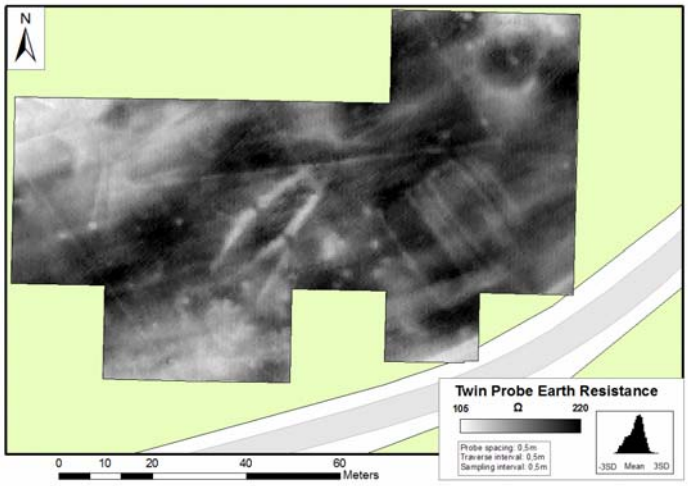

Figure 3: Twin probe Earth Resistance from Gustad.

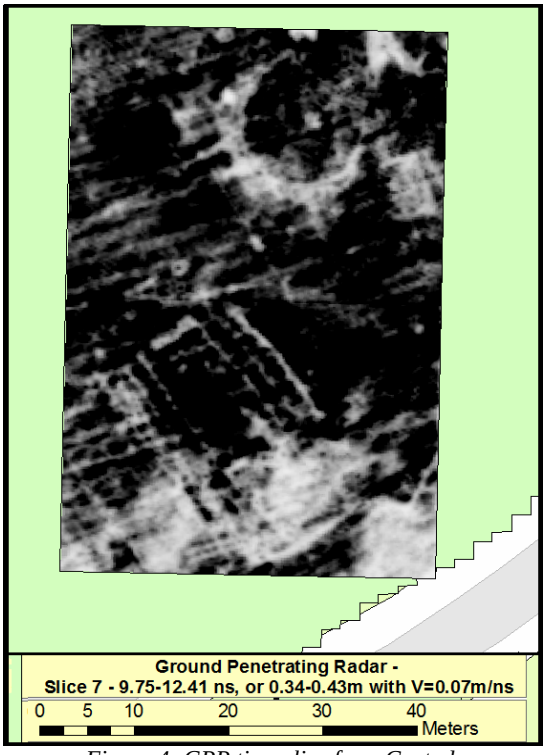

Figure 4: GPR time slice from Gustad.

The varied geophysical methods applied revealed different aspects of the nature of this site. Topsoil magnetic susceptibility (Figure 1) was undertaken on 4.74 hectares with a Bartington MS2-d field loop with a 5m sampling interval, and shows a clearly delimited area of increased values that coincides well with the known activity. This is interpreted as an anthropogenic activity area covering about 0.35 hectares, telling us that boathouses were not only used for seasonal storage of boats or ships, but must have been an area of increased activity over time. This was followed by 1.32 hectares fluxgate gradiometer survey with a Bartington Grad 601-2, with a traverse interval of 0.5m and sampling interval of 0.125m. This revealed over 600 anomalies with a clear contrast and a positive strength above 3 nT. A low background noise indicated that the site had not been significantly disturbed (Figure 2). Some strong dipolar anomalies can clearly be seen, as well as the walls of one of the houses present. Note that none of the ditches associated with burials are visible in the magnetic data. Following this, a twin-probe earth resistance survey was undertaken with a 0.5x0.5m sampling interval and similar probe spacing (Figure 3). Here not only one, but two houses can be seen in the lower right part of the image. These are interpreted as prehistoric boathouses, due to their orientation and extraordinary width of 10.6m (west) and 13.5m (east). The two ditches of a boat-shaped burial mound of 32m in length, as well as a circular ring-ditch with an internal diameter of 13m enclosing a central burial pit, can be seen in the middle and to the top right of the dataset respectively. A GPR survey with a GSSI sir-3000 system with a 400Mhz antenna, doing parallel lines 0.25m apart sampling every 2cm was also done, revealing additional information about the site (Figure 4).

The compiled results are a good example on how different methods together can reveal different aspects of the geophysical nature of anomalies derived from archaeological features. The nature the anthropogenic activity at this site can be more clearly understood, and the exact position of the archaeological remains is now known.

The Role of Archaeological Prospection in the Portus Project (Italy)

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Since 1998, the University of Southampton and British School at Rome have been undertaking systematic fieldwork at the site of Portus, the maritime port of Imperial Rome on the Tyrrhenian coast to the north of the river Tiber in Italy. In 2005 the project completed a large scale magnetometry survey of an area of 220 ha, focusing on the port and its immediate hinterland. This extensive work has since been supplemented by more recent fieldwork in the context of the Portus Project directed by Simon Keay (see www.portusproject.org for more information). The project[1] aims to answer a number of key questions about the character and development of Portus, its regional context and relationship with Ostia, through multiple seasons of targeted excavation supported by intensive geophysical survey, both in the surrounding territory (in particular Isola Sacra) and within the excavation area itself.

The excavations, conducted between 2007 and 2009, focused upon an area between the earlier Claudian port and the later hexagonal harbour constructed under Trajan, with the aim of securing the first full archaeological sequence from the centre of the port and providing further insight into the enigmatic "Palazzo Imperiale".

The initial magnetometry survey identified a range of features, including a long (170m) warehouse type structure facing onto the Trajanic harbour, and additional features of the so-called 'Palazzo Imperiale' which adjoined this area, along with a series of cisterns and the later Constantinian wall. However, one feature of particular interest revealed by the magnetometry survey was a structure that appeared to consist of two concentric walls that defined an oval space. It is possible that it was this structure that Rodolfo Lanciani, who investigated the site in the late 19th century, identified as a theatre. However, over the course of several seasons, a second phase of geophysical survey targeted this area with ground-penetrating radar (GPR 500Mhz Sensors and Software), with further support provided by a resistivity and ERT survey as well as several core samples, in order to allow the relative depth of deposits to be estimated. The oval feature revealed by the magnetometry was incomplete due to an early 20th century gravel track way which divides the structure into two parts. GPR was therefore used to complete the survey of the structure (figure 1), and through the integration of the different geophysical datasets it was possible to complete the picture.

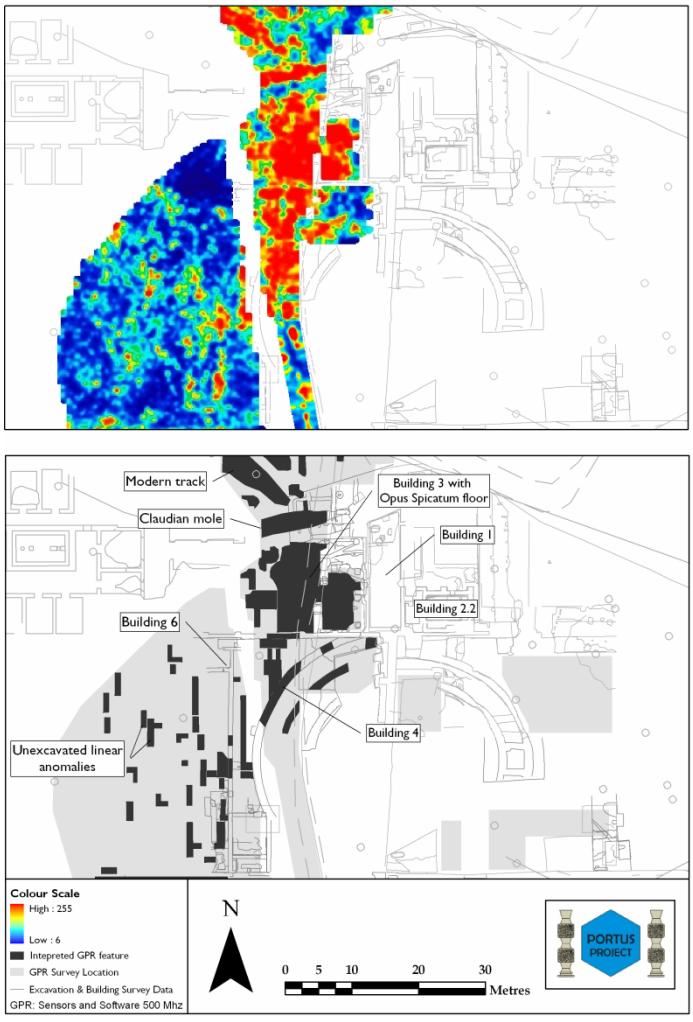

Figure 1 Results of the GPR survey in the area of the Castellum Aquae

[1] The Portus Project is funded by the Arts and Humanities Research Council (AHRC), and conducted in collaboration with the Soprintendenza Speciale per i Beni Archeologici di Roma with the support of Dr Angelo Pellegrino (Direttore dell'Area Archeologica di Ostia e Porto, Soprintendenza Speciale per i Beni Archeologici di Roma)

As seen from the subsequent excavation (figure 2), the structure appears to have the shape of a possible amphitheatre, measuring 42m on its long axis and 38m on its short axis. Importantly, the GPR survey revealed that the structure had a third outer concentric wall which joined the structure to the palazzo to the west, as was subsequently confirmed by the 2009 excavations.

Figure 2 Aerial photograph of the 2009 excavation. The possible amphitheatre can be seen in the centre of the excavation area.

The interpretation of this building has been aided by the concurrent 3D modelling of the structure during the excavation to test the different hypotheses (figure 3), based upon the geophysics data set and the results of the excavation and building survey. The resulting dynamic model provides a highly accurate reconstruction, based upon archaeological and geophysical evidence.

The reciprocal sequence of geophysics and excavation used in the Portus Project, and the close dialogue between the archaeologists and geophysicists, has meant that a detailed plan of the sub-surface features has been achieved across an archaeologically complex site. Within the research, the investigation of anomalies detected by the geophysical survey led to changes in the excavation strategy, which in turn gave rise to the use of alternative geophysical survey techniques.

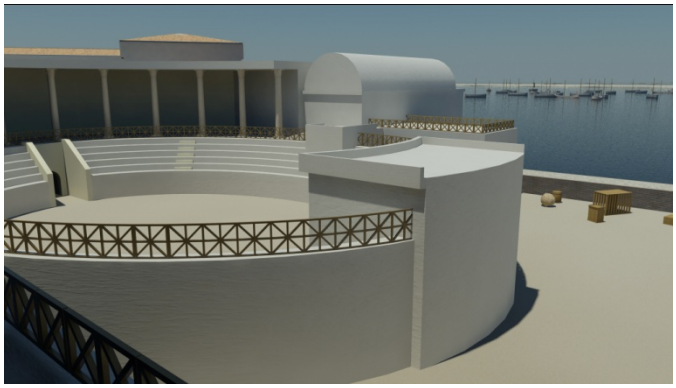

Figure 3 A virtual reconstruction of the amphitheatre

NSGG Day Meeting on Recent Work in Archaeological Geophysics 2010

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The 9th in this series of biennial day meetings was held on the 15th December 2010 in the Geological Society's home at Burlington House in London. As with previous conferences, it aimed to provide an opportunity for researchers to present recent work in prestigious but informal surroundings, view posters, exchange views and catch up with the latest developments from commercial exhibitors. Also, as has become traditional, many delegates stayed on overnight for the following linked day meeting on Environmental and Criminal Forensics, fostering ties between the two interest groups.

The meeting remained popular with a near-record 121 delegates battling the weather and the inevitable effect it had on the UK transport system to get there and home again afterwards. While having its origins as a forum for UK geophysicists it is now becoming a truly international gathering with 29 colleagues joining us from overseas, representing 12 different countries and hailing from as far afield as Russia and Canada. This international flavour was also reflected in the record number of presentations made during the day which involved a packed programme of 14 talks as well as 21 posters on display in the Lower Library. Almost half described non-UK surveys, these spanned three continents and, within Europe, covered work from 12 different countries. Given the number of fascinating archaeological investigations being described it was remarkable that there was also room for consideration of theoretical and methodological issues. However, reassessment of EM survey, magnetic and statistical modelling, novel methods of data presentation and the challenges of large scale data acquisition were all considered. Additionally, optimal GPR survey methodologies and the factors affecting the formation and detection of geophysical anomalies emerged as themes being considered by several researchers.

The unprecedented number of poster presentations prompted a new addition to the day in the form of an evening wine reception to allow more time to read them all and view exhibitors' stands. It was sponsored by the NSGG, the Forensic Geosciences Group and our commercial exhibitors: 3D Radar, Bartington Instruments, DW Consulting, Geomatrix, Geoscan Research and Utsi Electronics. The reception appeared to go well with many delegates remaining in the Lower Library until the formal close of proceedings at 19:30, after which stalwarts made their way across the road to Walkers pub - the traditional post-conference watering hole. There was also time to squeeze in the ISAP AGM in the lecture theatre after the last talk of the day, during which the ISAP committee awarded a prize for the best poster of the day. Congratulations go to Alette Kattenberg and Jakob Kainz for winning what was by all accounts a very close contest!

This was the first archaeological meeting the Near Surface Geophysics Group (NSGG) has held since changing its name (from the Engineering and Industrial Geophysics Group) to better reflect the breadth of geophysical sub-disciplines it covers. On the strength of this conference the group now draws interest from a broad range of near surface geophysicists and archaeological geophysics has certainly become well-established within the NSGG remit. Given its popularity, a 10th NSGG archaeological geophysics meeting is already planned with the first week of December 2012 pencilled in as a possible date.

As many will know from past meetings, the smooth running of the day owes much to my colleague Louise Martin and her efficient organisation of delegate pre-registration, abstract submission and preparation of the abstracts booklet amongst other tasks. I am grateful once again for Louise's efforts this time around although she couldn't be there to keep us in line on the day having gone on maternity leave two weeks before. Those who know her will, I am sure, be delighted to hear that she gave birth to a baby girl, Phoebe Grace, on the 28th December 2010 and both mother and daughter are doing well. For those who weren't able to be there but would like to know what went on, a PDF copy of the abstracts booklet is available from both the NSGG and ISAP websites:

http://www.nsgg.org.uk/meetings/
http://www.bradford.ac.uk/acad/archsci/archprospection/ArchGeo10/

And for those of you who were there as presenters, exhibitors and/or delegates, my thanks for making it another interesting and vibrant meeting.

Review of the 9th Biennial NSGG Conference

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The University of Bradford

The Near-Surface Geophysics Group held its ninth conference this year at the Geological Society's Burlington House, London. Held every two years, the conference has maintained its popularity, at 121 national and international attendees, nearly reaching its record number of 128 attendees. The 16th was dedicated to environmental forensics, organised by the Forensic Geoscience Group.

An impressive poster display provided insight into a variety of geophysical surveys and research. These posters were well presented, providing a great deal of information on ongoing and concluded projects. The poster display was accompanied by a commercial exhibition including 3D-Radar, Bartington Instruments Ltd., DW Consulting, Geomatrix Earth Science Ltd., Geoscan Research, and UTSI Electronics Ltd.

The presentations, 15 minutes in length with a five minute question and answer portion, covered a wide range of topics. While breadths of specific topics were covered, there were several general themes throughout the talks. The following highlighted presentations represent these themes:

Data presentation, with an emphasis on total landscape representation, was a recurring topic throughout the conference. James Lyall's (2010) presentation on Google Earth's interactive mapping capabilities for geophysical data sparked passionate dialogue whether this open-access presentation would encourage the desecration of archaeological sites. Nonetheless, accessible data presentation to both the specialist and general public alike (i.e. data overlaid on satellite and photographic imagery) was a preferred approach for data display.

Conference participants presented new instrumentation and survey methods for rapid data acquisition. The internationally collaborative Stonehenge Hidden Landscape Project combines these elements, integrating new rapid surveys techniques with three-dimensional landscape mapping. Together this allows for a more holistic understanding of entire landscapes (Gaffney et al 2010).

Advancements in modelling methods and data simulation, employing Bayesian and Euler deconvolution techniques, were also topics of interest (Legg et al 2010; Cheyney et al 2010).

Overall impressions of the conference are a vibrant, engaging community of archaeological geophysicists committed to a high standard of progressive, dynamic research.

The Abstract Booklet of the NSGG Day Meeting in London (15 Dec 2010) is now available for download on the ISAP web site (www.archprospection.org).

Cheyney S, Hill I, Linford N, Fishwick S and Leech C (2010. Adaption of Aero-Magnetic Interpretation Techniques for Archaeo-Magnetic Purposes. In: *Recent Work in Archaeological Geophysics*. Dec 15. London: 17-20.

Gaffney C, Gaffney V and Neubauer W (2010). Methodological and Archaeological Challenges in the First Season of the Stonehenge Hidden Landscapes Project. In: *Recent Work in Archaeological Geophysics*. Dec 15. London: 30-32.

Legg RM, Bond JM, Gaffney C and Heron CP (2010). Longhouses, Field Boundaries, and Rocky Outcrops: Modelling of Geophysical Data Sets Affected by Geological Outcrops in the Shetland Island for Past Land Use. In: *Recent Work in Archaeological Geophysics*. Dec 15. London: 14-17.

Lyall J (2010). Data Presentation and Interpretation – Using Google Earth as a Delivery Medium. In: *Recent Work in Archaeological Geophysics*. Dec 15. London: 20-21.

The new Ludwig Boltzmann Institute for Archaeological Prospection & Virtual Archaeology

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When in autumn 2008 the Ludwig Boltzmann Society (LBG), Austria's largest private research funding institution named after the great Austrian physicist (Left), announced a call for the setup of new Ludwig Boltzmann Institutes (LBI) in the fields of medicine, humanities, social sciences and cultural sciences, a team around archaeologist Professor Wolfgang Neubauer recognized this unique chance and formulated and submitted a proposal for the setup of an interdisciplinary research institute for novel, large-scale, high-definition archaeological prospection.

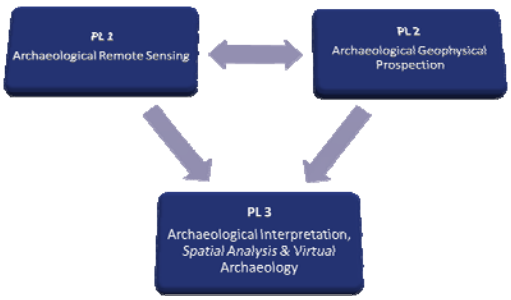
The idea and motivation for this proposal was the realization that the demands on future archaeological prospection require the ability to cover large areas efficiently and to map endangered cultural heritage in unprecedented resolution. Researching, developing and applying advanced remote sensing methods, efficient geophysical survey techniques, and integrating the generated data through new archaeological interpretation tools based on Geographical Information Systems (GIS) and Virtual Archaeology (VR) are three important, interrelated scientific tasks for the extension of conventional archaeological prospection as we know it to large-scale, high-definition archaeological applications covering entire landscapes.

In a two-stage selection process the LBG chose out of 47 initially submitted and internationally reviewed proposals ten for more detailed preparation. Three winning proposals were selected in November 2009 after final oral presentations:

- a Ludwig Boltzmann Institute for lung vascular research,
- a Ludwig Boltzmann Institute for neo-latin studies, and
- a Ludwig Boltzmann Institute for Archaeological Prospection and Virtual Archaeology (LBI ArchPro).

The new LBI ArchPro officially started its operation on April 2nd 2010. It is based in Vienna with offices and lab-space at two strategic places, located on the one hand in the *Archaeology Centre* alongside with the Institutes for Prehistory and Early History, Classical Archaeology and Numismatics of the University of Vienna and the interdisciplinary research platform VIAS (Vienna Institute for Archaeological Science) and the Austrian Archaeological Institute, as well as on the other hand in the nearby Central Institute for Meteorology and Geodynamics, offering close collaboration with the experienced *Archeo Prospections*® team and scientists in the Geophysics department.

An integral and important part of the LBI ArchPro are its eight European partner organizations, covering academic institutes, national archaeological and geophysical research departments, governmental cultural heritage agencies as well as commercial archaeological prospection service providers. In particular these are The Norwegian Institute for Cultural Heritage Research (NIKU), the Province of Lower Austria (NoeL), the Swedish National Heritage Board (UV), the Roman-Germanic Central Museum in Mainz - Germany (RGZM), the Technological University of Vienna (TU-Wien) with the Institute for Computer Graphics and Algorithms and the Institute for Photogrammetry and Remote Sensing, the University of Vienna (UNI Wien), the Vienna Institute for Archaeological Science (VIAS) and Institute for Prehistory and Early Mediaeval History, The Visual and Spatial Technology Centre (VISTA) at the University of Birmingham, and the Department of Geophysics at the Central Institute for Meteorology and Geodynamics (ZAMG).



Organigram of the LBI ArchPro

The scientific programme of the LBI ArchPro is subdivided into three closely interacting, interdisciplinary research platforms, specifically into the programme lines for *Archaeological Remote Sensing* (PL1), *Archaeological Geophysical Prospection* (PL2) and *Archaeological Interpretation, Spatial Analysis & Virtual Archaeology* (PL3). The research and developments of PL1 in the field of remote sensing covers aerial photogrammetry, airborne laser scanning (ALS) and airborne hyper-spectral scanning. PL2 focuses on the setup and design of motorized multi-sensor devices for magnetometer and Ground Penetrating Radar (GPR) prospection, the

implementation of automated positioning and navigation systems and the development of data processing and visualization techniques for archaeological prospection data. The new large and complex datasets generated by PL1 and PL2 require integrated archaeological interpretation based on three- and four-dimensional Geographic Information Systems and adequate tools to extract and visualize the contained archaeological information. PL3 will develop a platform permitting the researchers and partners to process, analyse, interpret and manage the data, with the goal to permit new ways of accessing information about endangered and hidden cultural heritage across entire archaeological landscapes.

Motorized GPR survey at Uppåkra in southern Sweden with the 16 channel 400 MHz MALÅ Imaging Array (8 cm channel spacing) using a robotic total-station for positioning.

In order to develop, test and improve technology, methodology, hardware and software a number of case studies all over Europe and directed by the national partners have been selected:

In Britain *The Stonehenge Hidden Landscapes Project* directed by the British partner organization VISTA at the Institute of Archaeology and Antiquity, University of Birmingham will undertake a cutting-edge geophysical and remote sensing survey at an unprecedented scale, encompassing a large portion of the World Heritage Site. The initial fieldwork campaign conducted at Stonehenge in early summer 2010 saw the first multichannel magnetometer and high-definition GPR systems in action, providing an ideal testing ground for system trials, methodological advancements and the intensive development of the software required for data processing, resulting in a steep learning curve. A scientifically very interesting archaeological discovery in form of a henge structure quickly made headlines, and demonstrated the potential of the chosen approach for landscape archaeology. Rumours that the discovered anomaly would have been caused by remains of a modern metal fence, or associated recent post holes, are unsubstantiated.

Motorized magnetometer system carrying five Foerster gradiometer probes with 50 cm spacing.

Other case study sites are the Iron Age proto-urban settlement sites Birka and Uppåkra in Sweden. In 2010 first laser scanning and large scale geophysical prospection surveys have been conducted in collaboration with the Swedish partner UV and Lund University at Uppåkra, resulting during six days of fieldwork in very promising data with numerous anomalies of archaeological interest, as well as further advancements in measurement efficiency. In spring 2011 the survey of this important Viking settlement site and its surrounding landscape, as well as the survey of the UNESCO World Cultural Heritage site Birka - Hovgården will continue.

In September 2010 first large-scale GPR and magnetometer surveys were conducted as start of the third case study in the region surrounding the town of Larvik in Vestfold County, Norway, directed by the Norwegian partner NIKU and in close collaboration with the Vestfold County archaeologists. Very high resolution ALS data with 12 points per square metre coverage has been made available for the entire region by the County archaeologists. In combination with aerial photographs and the in terms of quantity and quality unprecedented geophysical data this ALS data will be used to develop new tools for integrative archaeological interpretation.

Further case studies are planned in Germany, exploring the medieval rural landscape around Stubersheim, Neolithic societies in the Upper and Middle Rhine and the surrounding low mountain ranges, as well as the Aurignacian site of Breitenbach.

Map of LBI ArchPro case study sites in Austria, Britain, Germany, Norway and Sweden.

In Austria the following case study sites will be investigated: the Roman urban landscape of Carnuntum, which already has seen considerable archaeological prospection activity; the Roman rural landscape of Halbturn; the prehistoric landscape of Kreuttal; specifically for the evaluation of repeated ALS surveys the historic and prehistoric wooded landscape at Purbach and St. Anna will be studied.

All case studies benefit from the close interaction between the local experts and national partners with the LBI ArchPro team (currently 15 researchers, technicians and administration managers). In 2011 several PhD projects will be announced by the University of Vienna closely connected to the LBI ArchPro activities, attracting further young potentials in the field of cutting-edge archaeological prospection.

Important goals of the institute are the promotion of young researchers, as well as the publication of research results, both for the scientific community and for the interested public. While one channel of information is the institute's website (http://archpro.lbg.ac.at) more news will certainly find its way into this newsletter.

Please send these to the Editor, r.j.fry@bradford.ac.uk

Call for Papers

The 9th International Conference on Archaeological Prospection

Dokuz Eylül University in Izmir, Turkey. 19th-24th September 2011

The 9th International Conference on Archaeological Prospection will be organised by the Center for Near Surface Geophysics and Archaeological Prospection (CNSGAP) of Dokuz Eylül University and International Society for Archaeological Prospection (ISAP).

SESSIONS

1. Archaeological prospection in the past, present and future in Anatolia
2. Site based studies
3. Integrated prospection methods
4. Processing, interpretation and visualization
5. Technical aspects and archaeological feedback
6. Remote sensing, GIS, imaging
7. Archaeological prospection in urban sites
8. Archaeological prospection in restoration and conservation studies
9. Marine studies
10. Poster session

REGISTRATION & EXHIBITION

	Early Registration (until 30 of June)	On the desk
Full Participant	300 €	350 €
Student	100 €	125 €
Accompanying person	100 €	125 €
Exhibitor	1000 €	1000 €

Registration fees include; attendance to the sessions, volume of extended abstracts, congress kit, coffee break, cocktails on Monday and Friday. Exhibition fee includes; a table, chairs, billboards, electricity.

Important Dates

Opening Call for Papers	15/03/2011
Opening Registration	15/03/2011
Deadline for extended abstract submission	30/04/2011
Early Registration	30/06/2011

Oral presentations cannot be longer than 15 minutes, including questions. Please keep in mind that the accepted language of the conference is English.

Poster presentations will be presented in a separate session in the conference program (10 minutes). Poster dimensions are dictated by stand size and cannot exceed 90 cm in width and 150 cm in height.

Website: http://web.deu.edu.tr/ap2011/ **(soon to be online)**
Email: ap2011@deu.edu.tr

Conference on Archaeological Prospection in Germany 2011

The University of Mainz, Germany 9th and 10th September 2011

The application of different survey methods (aerial photography, geophysics and remote sensing as well as sampling and field walking) are essential tools in modern archaeology. A conference, which will take place at the University of Mainz (Germany) on 9 and 10 September 2011, focuses on these issues. The aim of this conference, which is being organised with the support of the ISAP and AARG, is to bring together users and producers of archaeological survey data. Besides the current developments in the different fields there will be a focus on an improved linkage of the results and the sustainable networking of the methods.

Due to the federal governmental structure of Germany the use of survey methods differs in the individual states. Especially the public archaeology agencies but also research institutes and commercial companies can derive advantage from an improved networking. The conference addresses to everyone belonging to the producers, users or administrators of archaeological survey data. It affords room to present current and completed projects, to exchange experiences, to create new ideas and to discuss problems and research deficits.

You are invited to give a talk (20 minutes) or to present a poster (up to A0). We would like to ask you to send us the title and an abstract (500 to 1000 words, optional with illustrations) of your talk or poster. Please indicate if you prefer oral or poster presentation. Abstracts will be published online after the conference. The conference will be held in German although translations of abstracts into English are welcome.

If you like to attend the conference, to give a talk or to present a poster, please let us know soon. Abstracts must be handed in till 30 April. For questions, further information or to apply for the conference please visit our website http://www.geowiss.uni-mainz.de/351_DEU_HTML.php or send us an e-mail to ap-konferenz@uni-mainz.de

Archaeology Special Interest Group Session – Imaging our Heritage – Cultural Heritage

13th-15th September, Bournemouth

Applications of Remote Sensing and Photogrammetry
RSPSoc Annual Conference 2011 - 13th-15th September, Bournemouth, UK

RSPSoc ArchSIG invites submission of papers to the special interest group session of the RSPSoc 2011 Annual Conference "Earth Observation in a Changing World".
http://www.rspsoc.org/images/uploads/RSPSoc_2011_First_Call.pdf

Contributions are encouraged in the following broad areas:

- Novel technological applications for the cultural heritage sector
- Ground based remote sensing (e.g. laser scanning, geophysical survey)
- Airborne and satellite remote sensing
- Multisensor survey techniques
- UAVs for archaeological prospection

Please contact Rebecca Bennett rbennett@bournemouth.ac.uk for further information.

National Park Service's 2011 Archaeological Prospection Workshop

Texas, 23-27th May 2011

The National Park Service's 2011 workshop on archaeological prospection techniques entitled *Current Archaeological Prospection Advances for Non-Destructive Investigations in the 21st Century* will be held May 23-27, 2011, at the Palo Alto Battlefield National Historical Park in Brownsville, Texas.

Lodging will be at the Courtyard by Marriott in Brownsville. The field exercises will take place at the site of Fort Brown on the University of Texas at Brownsville and Texas Southmost College campus in Brownsville. The Palo Alto Battlefield National Historical Park preserves the historic and archaeological remnants of the first battle of the Mexican War in 1846. Co-sponsors for the workshop include the National Park Service's Palo Alto Battlefield National Historical Park and the Midwest Archaeological Center. This will be the twenty-first year of the workshop dedicated to the use of geophysical, aerial photography, and other remote sensing methods as they apply to the identification, evaluation, conservation, and protection of archaeological resources across this Nation. The workshop will present lectures on the theory of operation, methodology, processing, and interpretation with on-hands use of the equipment in the field. There is a registration charge of $475.00. Application forms are available on the Midwest Archaeological Center's web page at http://www.nps.gov/history/mwac/ . For further information, please contact Steven L. DeVore, Archaeologist, National Park Service, Midwest Archaeological Center, Federal Building, Room 474, 100 Centennial Mall North, Lincoln, Nebraska 68508-3873: tel: (402) 437-5392, ext. 141; fax: (402) 437-5098; email: steve_de_vore@nps.gov

AARG / EARSeL 2011, Poland

The Adam Mickiewicz University of 21-24 September 2011

International aerial archaeology conference
AARG/EARSeL 21 - 24 September 2011
Poznań, Poland

Organised by
The Aerial Archaeology Research Group,
The European Association of Remote Sensing Laboratories & Institute of Prehistory Adam Mickiewicz University in Poznań under the auspices of UNESCO

Proposals for sessions, papers and posters are invited for presentations and discussions on 21 - 23 September. There will be a Field Trip on the 24th September.

Oral papers should usually be 20 minutes duration. Equal value is given to poster presentations.
Closing date for session proposals/abstracts is 31st May 2011.

Address for all conference correspondence:
Dave Cowley, RCAHMS, 16 Bernard Terrace, Edinburgh, EH8 9NX, Scotland
Email dave.cowley@rcahms.gov.uk
Rosa Lasaponara, CNR-IMAA, C.da S. Loya, 85050 Tito Scalo (PZ), Italy
Email lasaponara@imaa.cnr.it

http://aarg.univie.ac.at/
http://www.earsel.org/

Bursaries

AARG / EARSeL 2011, Poland

The Adam Mickiewicz University of 21-24 September 2011

STUDENT/YOUNG RESEARCHERS BURSARIES FOR AARG 2011

These are to support bona fide students and young researchers who are interested in aerial archaeology and wish to attend the conference. Applications to Dave Cowley (dave.cowley@rcahms.gov.uk) by letter or email. There is no formal application form but please provide the following information:

Your interests in archaeology and aerial archaeology; place of study; the name and contact details of a supervisor or employer who can provide a reference; an estimate of travel costs to attend.

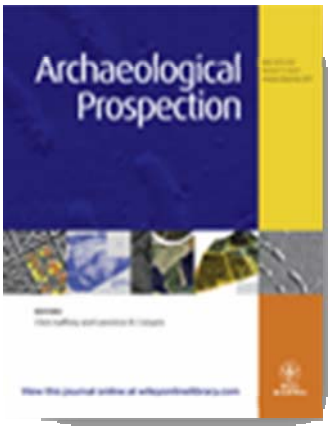
Closing date for applications is 31st May 2011.

http://aarg.univie.ac.at/
http://www.earsel.org/

Journal Notification

Archaeological Prospection

The first issue of the new year of Archaeological Prospection should include the following articles:



Challis – Airborne Lidar intensity and geoarchaeological prospection in river valley floors

Leckebusch - Comparison of a stepped-frequency continuous wave and a pulsed GPR system

Thompson *et al* - Situating Remote Sensing in Anthropological Archaeology

Leopold *et al* - Geophysical prospection of a bronze foundry at the southern slope of the Acropolis at Athens, Greece

Viberg *et al* - A review of the use of geophysical archaeological prospection in Sweden

Stichelbaut - The First Thirty Kilometres of the Western Front 1914-1918: an aerial archaeological approach with historical remote sensing data

Verhoeven - Taking Computer Vision Aloft – Archaeological 3D Reconstructions from Aerial Photographs with PhotoScan

Of course this is the time of year to take advantage of the great deal offered to ISAP members by Wiley-Blackwell for this journal (http://www.bradford.ac.uk/archsci/archprospection/menu.php?2)