Issue 36: August 2013

ISAP NEWS

The newsletter of the **I**nternational **S**ociety for **A**rchaeological **P**rospection

Contents

Editors' Note

Robert Fry & Hannah Brown

Welcome to the 36th issue of ISAP News! A very big thank you to those who have found time to contribute to it - we hope you find it an interesting and enjoyable read.

In this edition we have details of current investigations at Basing House, near Basingstoke, UK (page 2), as well as magnetic surveys of quadrangular enclosures in Iron Age Bohemia, Czech Republic (page 5). Stemming from the recent Archaeological Prospection conference in Vienna, we also have some thought provoking reflections on geophysical survey of large areas (page 8) and the potential impact of social media in the world of geophysics (page 10).

Just a quick house-keeping note: we'd like to draw your attention to the new email adress for the ISAP News Editors - see below. Now there are 2 of us, it makes life easier!

Those of you who are, or have been, away on field work over the summer... we would all love to hear about the projects you're involved with! Please send any contributions, comments or queries for the next newsletter (ISAP News 37) to editor@archprospection.org by the 31st October 2013. All entries are gratefully received!

editor@archprospection.org

Important Notices

Membership renewal
£7 or €10 for the whole year. Please visit:
http://www.bradford.ac.uk/acad/archsci/archprospection/renew.php

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

Archaeological and Geophysical Survey at Basing House, near Basingstoke, Hampshire, UK

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www.arch.soton.ac.uk
www.basinghouseCAT.wordpress.com

In March and April 2013 an archaeological survey was carried out by staff and students from the Department of Archaeology at the University of Southampton (www.arch.soton.ac.uk) on the site of Basing House in Hampshire. The survey was initiated as the first season of work on the Basing House Community Archaeology and Technology Project. The project is a collaboration between staff from Hampshire County Council and students from the University of Southampton and is directed by David Allen, Gareth Beale, Nicole Beale, and Chris Elmer. The project places an emphasis on the innovative use of technology and involvement of community volunteers in the fieldwork (www.basinghouseCAT.wordpress.com).

The site of Basing House has an extensive history, spanning from the Iron Age to the present day, with substantial earthworks and remains from the medieval and post-medieval period, including the remains of the Tudor buildings and the English Civil War defences. Basing House is best known for having been the focus of one of the most sustained sieges of the English Civil War, which ultimately resulted in the destruction of the vast majority of buildings on the site. Located some 3.5km to the east of modern Basingstoke, the site is situated on a low ridge between the river Loddon and Basingstoke Common (**Fig. 1**).

The aim of the first season of survey work at the site was to establish the extent and nature of buried archaeological remains through the application of geophysical survey techniques at the site, and to provide a topographic survey of the site for interpreting the extant earthwork and building remains. In addition, a building survey of parts of the tithe barn was conducted to help establish different phases of construction in the building. Topographical survey and geophysical survey focused on the area around the Old House, the Bailey area of the ring-work, and the New House, also the Civil War defences around the western and southern sides of the site, complementing results of a

Figure 1 *Orthorectified image showing Basing House and the surrounding area (copyright Google Earth)*

GSB Prospection survey previously conducted at the site. Topographic survey, together with the gridding out of the site, was carried out using Leica total stations with a Leica VIVA differential GPS. Topographic spot elevation points were surveyed at 2m intervals along traverses spaced 2.5m apart, with further measurements taken on breaks of slope across the site. Survey instrumentation was also used to establish a 30m by 30m survey grid across the site in preparation for geophysical survey.

Magnetometry was conducted over the areas outside of the ring-work defences (**Fig. 2**), using two Bartington Instruments Grad 601 fluxgate gradiometers with dual sensors. Readings were taken at 0.25m intervals along traverses spaced 0.5m part. High resolution earth resistance survey was carried out within the ring-work and area of the Old House, and across the New House and Bailey. The survey was conducted using three Geoscan Research RM15 resistance meters, with measurements taken at 0.5m intervals along traverses spaced 0.5m apart. In addition, targeted Ground Penetrating Radar (GPR) survey was conducted in the area of the Old House (**Fig. 3**) using a GSSI 200MHz antenna with sled and odometer, along traverses spaced 0.5m apart. The building survey at the tithe barn was

Figure 2 *Magnetometer survey being carried out by one of the Southampton students, using a Bartington Instruments Grad 601 fluxgate gradiometer (photo: K. Strutt)*

Figure 3 *GPR survey being undertaken in the Old House using a GSSI 200MHz antenna with SIR-3000 (photo: K. Strutt)*

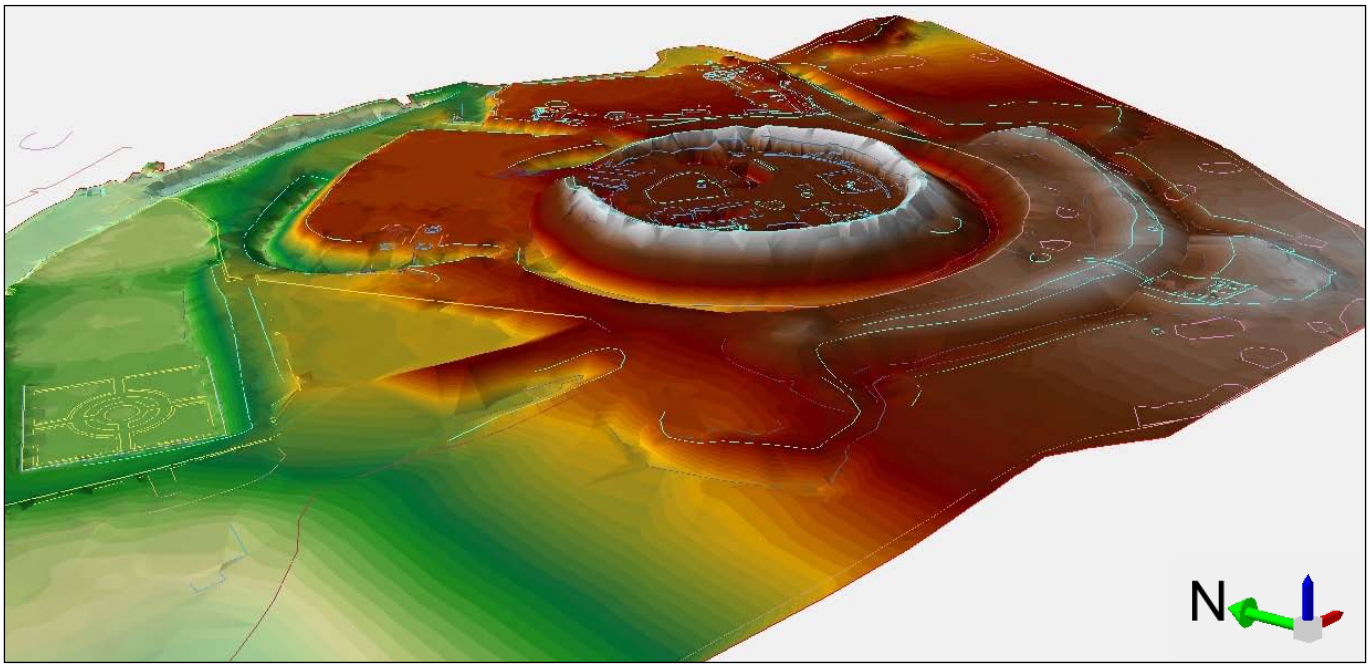
undertaken using a Leica total station with red laser, connected to a computer running TheoLT software.

Preliminary results of the survey have provided some encouraging and exciting possibilities in terms of the archaeology at the site. The topographic survey has mapped the extent of the excavated structures of the Old House and New House, and gives a clear indication of the gradient and scale of the ring-work defences and the Civil War defences that enclose the site (**Fig. 4**). In addition, the survey has provided a record of the 1960s and 1970s excavation trenches prior to new excavation work commencing in the Summer of 2013.

The magnetometer survey results show possible remains at the site relating to Iron Age and Romano-British settlement on the ridge and Common (**Fig. 5**). The line of a ditch is clearly visible in the results, cut by the later medieval and Civil War defences, that may be associated with later prehistoric and Roman material found in past excavations at the site. The full extent of the Civil War defences was also revealed in the magnetometry, indicating the outer ditch and palisade trench of the half-moon earthworks, and the spread of dipolar anomalies associated most probably with munitions from the sieges of the House.

The earth resistance survey results (**Fig. 6**) indicated the full extent of the unexcavated buildings within the Old House, providing complementary data to the topographic survey in the area. In addition the gateways, defences and towers of the New House were clearly represented, together with the infilling of the ring-work outer ditch between the Old House and the Bailey. A substantial number of high and low resistance anomalies were also visible on the Bailey. These seem to indicate platforms, ditches and pits associated with ephemeral

Figure 4 *Digital Elevation Model of the topographic survey results at Basing House*



features and structures in the area, possibly associated with the medieval occupation of the site before the construction of the Tudor buildings. Future investigation of this area would be beneficial to understand the role of the Bailey in the medieval and later occupation of the site.

As this paper is going to press the excavation season at Basing House is under way, investigating trenches along the southern side of the Civil War defences, and topographic and geophysical survey is also being carried out on the site and across parts of Basingstoke Common immediately to the south.

Figure 5 *Results of the magnetometer survey at Basing House*

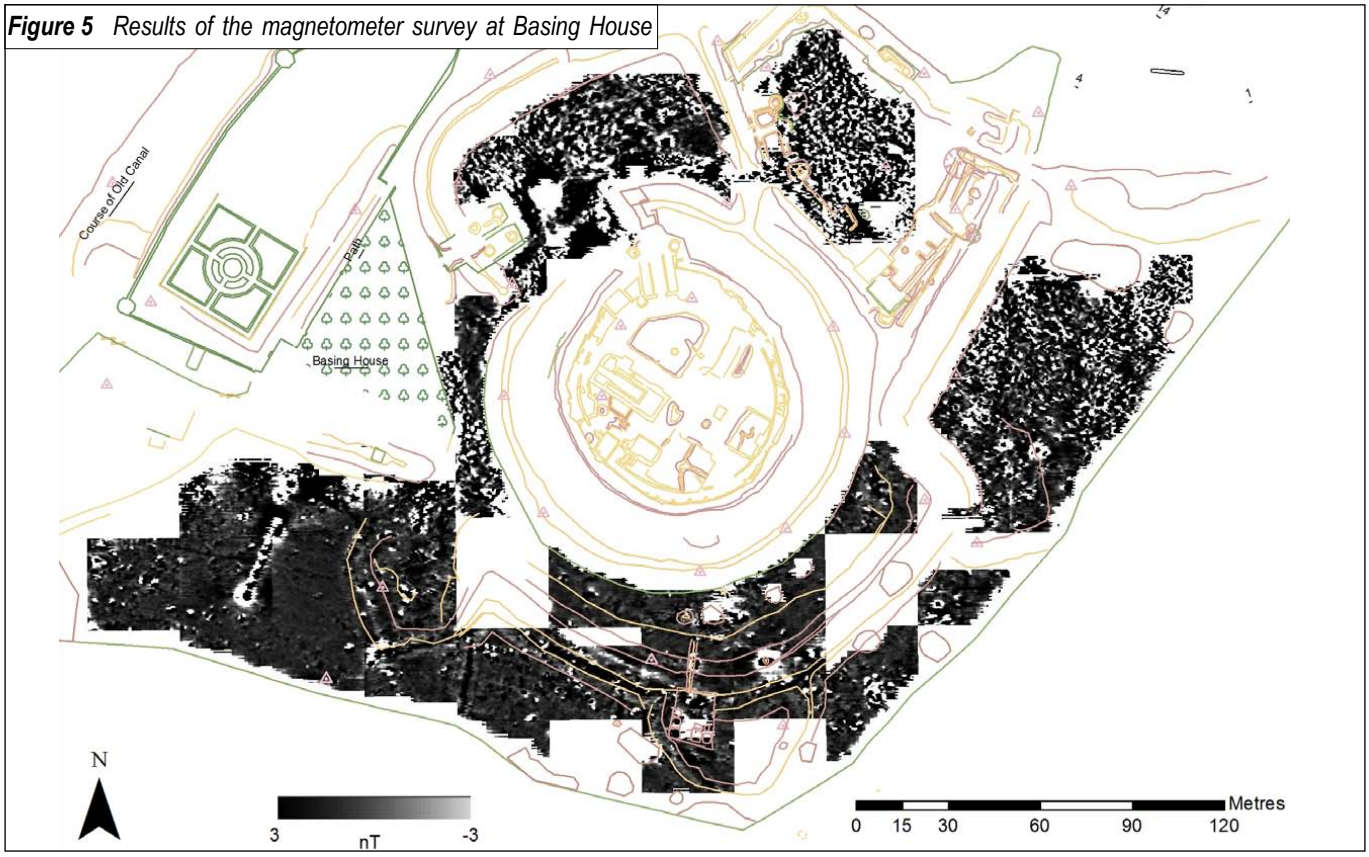
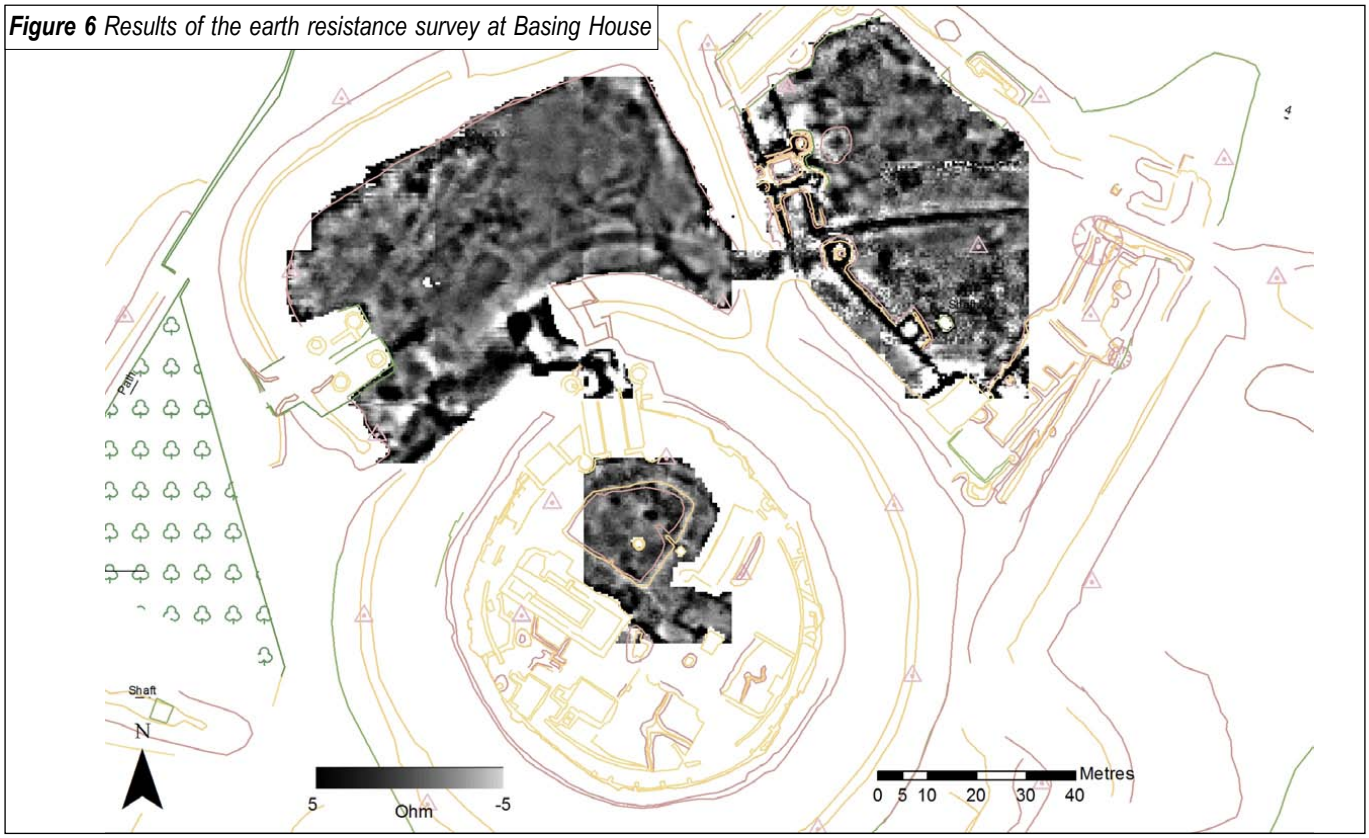


Figure 6 *Results of the earth resistance survey at Basing House*



Geophysical surveys of abandoned quadrangular enclosures ("Viereckschanzen") from La Tène period in Bohemia

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Geophysical methods in Bohemian archaeology have been applied to very varied archaeological needs, including rescue archaeology, archaeological research projects, protection of archaeological monuments and/or non-destructive verification of previously unknown archaeological situations. Through the archaeogeophysical project of the Institute of Archaeology in Prague, "Enclosed areas in prehistory and the Early Medieval period" (AV0Z80020508), it has been possible to use geophysical means to observe a number of known but only partially excavated specific enclosed features (such as roundels, atypical and also quadrangular enclosures). La Tène quadrangular enclosures (in Czech, as in German archaeology, named "Viereckschanzen") represent a specific type of late Iron Age enclosure, the functions of which are still not clear either in the landscape or in relation to late Iron Age settlement areas. The majority of these enclosed features are located in the SW part of Bohemia (with similar late Iron Age cultures and "Viereckschanzen" in Bavaria, Germany). Enclosures are situated on sloped terrain above streams or settlements in valleys and are quadrangular in shape, with an enclosed inner area from 0.5 to 1.5 ha and only one entrance. Unfortunately, due to the common location in present and/or former agricultural areas, many of them were intensively ploughed out and now lack their completely preserved shape, perimeter ramparts and outer perimeter ditches. Where enclosures have been the subject of archaeological excavations in the past, these investigations have been largely limited to individual trenches concentrating mainly on perimeter fortifications or dating of a site. In cases where enclosures were not verified by excavation there exists only basic information about extent, dimensions, and internal structure of activities.

The first stage of geophysical survey of these features was therefore aimed at identification of complete enclosed areas and verification of internal areas. Magnetometric measurement was the most helpful geophysical method, and contributed to the differentiation of enclosed areas in ploughed fields as well as the confirmation of some ploughed subsoil remains of individual sunken features. In the case of La Tène quadrangular enclosure Třebsko II (Příbram district, southern Central

Fig. 1. *Třebsko II, district Příbram. Comparison of details of aerial photographs of the site from 1953 and 2008 documenting nearly complete ploughing out of the La Téne quadrangular enclosure. (Aerial photographs: www.kontaminace.cenia.cz.)*

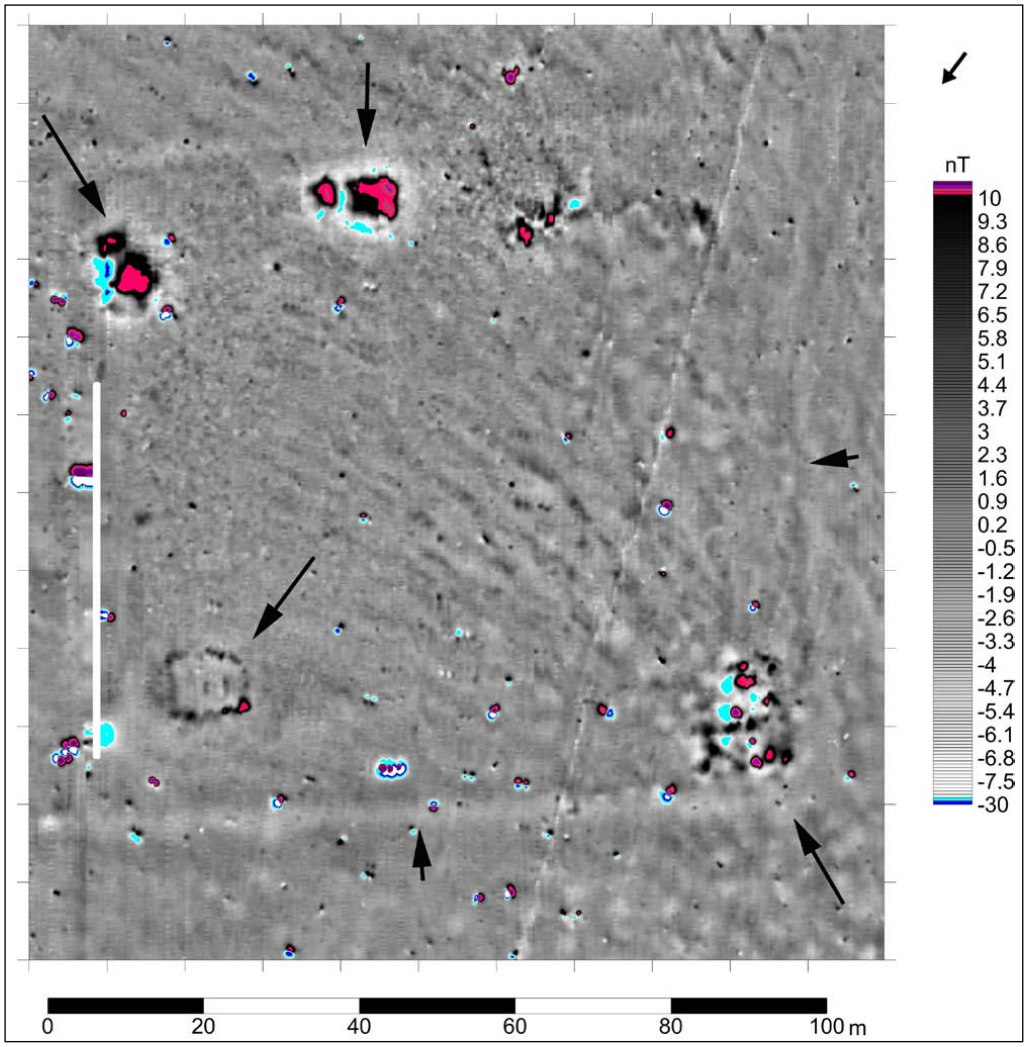

Fig. 2. *Třebsko II, district Příbram. Identification of ploughed out remains of perimeter ditch fortification and inner sunken features in corners and along perimeter fortification at the La Téne quadrangular enclosure. (Surveyed area: approx.1.2ha; magnetometric survey: Křivánek 2012.)*

Fig. 3. *Běleč, district Strakonice. Identification of ploughed out remains of perimeter ditch fortification and inner/outer activities at the La Téne quadrangular enclosure. (Surveyed area: approx. 1 ha; magnetometric survey: Křivánek 2012; aerial photograph: www.kontaminace.cenia.cz).*

Bohemia), detailed magnetometric measurement contributed to the new identification of a deeply ploughed enclosure, the perimeter rampart of which is now ploughed out on three sides (**fig. 1**). The original shape and dimensions of the enclosure can only be determined due to the identification of a negative linear anomaly over the perimeter outer ditch (**fig. 2**; probably reflecting removal of magnetic minerals from the filling of the ditch due to ploughing and deep erosion on sloping terrain). However, within the enclosure we can still determine the remains of sunken features, identified by positive magnetic anomalies. All of these features are only located near corners or along the perimeter fortification of the enclosure, suggesting that most of the inner area was probably used in other ways, without larger sunken features. (The origin of narrow, weakly magnetic linear anomalies is unclear – perhaps reflecting the effect of former ploughing or other landscape changes inside the enclosure?) In the case of La Tène quadrangular enclosure near Bělčice (Strakonice district, South Bohemia), magnetometric measurement helped to verify shape and dimension of the enclosure (**fig. 3**). This enclosure, previously archaeologically verified (Waldhauser-Fröhlich 1992), had two preserved wings (one with preserved rampart and outer ditch, the second with only the edge of a terrace and outer ditch); the other two sides of the enclosure were ploughed out. Weakly positive magnetic linear anomalies identified the outer perimeter ditch. Remains of possible groups of sunken features inside (in corners and near perimeter fortifications) and also outside of the fortified area were identified by positive magnetic anomalies. Most of the central part of the enclosure was again without larger sunken features or positive anomalies.

So far, magnetometric survey of abandoned quadrangular La Tène enclosures has been realized on 10 sites (of approx. 12 to 15 known enclosures in Bohemia – see Waldhauser 2012; some are forested, excavated or with magnetically unstable bed rock). The second stage of geophysical surveys of these features will be connected with other archaeological activities (a proposed archaeological project), such as surface artefact collection, metal detector survey (all of the sites are endangered by illegal metal detector users) and, eventually, trenches. The aims of magnetometric and/or geoelectric resistivity measurements would then be directed towards verification of fortifications and entrances, and the comparison of the structure of activities inside and outside enclosures.

References

Waldhauser, J. 2012. Kelstké Čechy. Průvodce. Academia. Prague.
Waldhauser–Fröhlich, J. 1992.: Čtyřúhelníkové valy u Bělčic na Blatensku v jižních Čechách. *Archeologické Rozhledy* 44,4: 637-645.

Whose landscape anyway? Thoughts about large area surveys

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After the AP2013 conference in Vienna two emergent ideologies seem apparent: first, the need to obtain better quality data from individual sites; and second, the increasing desire (and indeed, need) to survey large areas of land, so pure prospecting at a landscape scale. It also seems evident that while some consider these to be mutually exclusive, others see both as opportunities to be embraced.

Two realities exist: one being that large parts of Europe are in intensive arable production, which directly results in the attrition of the unexplored, and therefore unquantified, resource. The other is that because so much geophysical endeavour seems to result in an 'archaeology/not archaeology' result, surveys and surveyors are under-performing. The first is easy to address – we need to be examining (not just using geophysics) very large areas as pure prospecting, to inform resource management or, at worst, 'salvage' survey. To improve upon the second, two things are needed: first, improved support from academia so that data can be better understood, and secondly, better understanding amongst folks who mistake geophysics for racing around a field with a magnetometer and easy money!

The need for larger surveys is clear; not only do archaeologists require larger areas to be surveyed in advance of development, but we also need to better understand what is being eroded away during cultivation. The latter is also relevant in countries where intensive and heavily mechanised agriculture is not yet prevalent, to quantify what will be lost. However, to survey larger areas properly we need the equipment (something that is now happening), but also the will and ability to move beyond the 'stamp collecting' (as Irwin Scollar highlighted in 2001) that large area surveys inevitably feed. This also needs to be done without compromising data quality. While in the UK the abandonment of sampling and scanning approaches has thankfully been achieved, moving to 0.5m line separation for magnetic survey is only just beginning, in contrast to other European states.

However, herein lies a problem. Currently there are few effective means of surveying large areas and when 'landscape surveys' are talked about 'magnetic surveys' are usually what is meant. However, since when has a magnetic survey been a survey of a landscape? What landscape and from when? In the UK in particular, there is an over-reliance upon magnetic methods not just for large surveys but for all surveys. 'Geophysics' has become a by-word for 'magnetic' amongst many contractors and curatorial archaeologists for reasons that are complex, *e.g.* technology, commercial expediency and ability. Just as a single method cannot completely describe the buried soils at a site, let alone the archaeology, it also cannot completely describe a landscape. There are probably a myriad of archaeological definitions of landscape, but we have to work with the physical, *i.e.* soils. At any given time there is infrastructure, settlement, industry, farming, sacred places and places where bad things hide… is geophysics really capable of detecting and mapping all these, let alone using just a single method? Obviously not and in any case this ignores the temporal dimension; someone's sacred place might later be someone else's den of iniquity.

It seems, then, that we have a problem: we are embracing the concept of landscape survey without having the necessary tools and understanding at our disposal. Yes, huge areas of magnetic data can be collected and yes, collections of anomalies can be, and are, labelled as sites, but what about the areas in between? Our magnetic landscape is no more a representation of a physical landscape than cropmarks are of past crops. Are magnetically blank areas devoid of landscape character or could they be areas where the physical landscape is spatially and temporally uniform? How can we know? We could deploy more techniques, but in some ways that complicates

the problem; more data is collected and maybe some more sites are found, but does it necessarily increase our understanding of the landscape and at what point in time?

It seems that a more holistic approach is needed - something that integrates geophysics, geology, geography and environmental science. Rather than just finding sites, how do we find woodland or marshy ground? How do we find areas of seasonal grazing? Where did streams and rivers flow? Geophysical techniques clearly have a huge role in this but can only achieve their full potential if there is closer integration with the other sciences.

We hence return to a point made earlier; better support from academia is necessary. An improved understanding of the linkages between soil properties and geophysical data is needed and for this to be applicable at all scales of geophysical endeavour. We also need to better understand how aspects of landscape character might be detectable using geophysical techniques. Research must be made widely and easily available, published not just in obscure journals behind paywalls but disseminated to where it is needed most *i.e*. the commercial and research survey sectors.

In conclusion it would appear that nothing short of a technical revolution is needed at both site and landscape scales. We need better science to be doing better geophysics on individual sites but we also need wider science and understanding, through multi-disciplinary collaboration, before we can presume to understand landscapes. However, given the pressures upon land for arable production, it is apparent that to not undertake landscape scale prospecting would be akin to Nero fingering his lyre while Rome burned.

Archaeological Prospection Conference 2013: The Twitter Review

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The audience at the 10th Archaeological Prospection Conference was significantly larger than previous years and many of those didn't even make it to Vienna. Many of the attending delegates used Twitter and other social media to instantly communicate short messages or 'tweets' about the conference to their colleagues across the world that could not attend it in person.

Many of the tweets included the hashtag identifier #AP2013 which allowed users to semi-synchronise on-going conversations. The #AP2013 tweets were archived (Beck 2013) online and these can be used to gauge the level of impact that Twitter had on the conference. Some of the #AP2013 tweets were not directly relevant to the conference (*e.g.* American Prom 2013 or Mexican Soccer) and these were excluded from the Beck archive. Many more conference tweets were sent and received but were not archived if they didn't incorporate the hashtag - estimates suggest that more than 500 conference tweets may have been sent in total.

Who was tweeting?

The 14 Twitter delegates attending the conference had a combined audience of 3,717 followers (an average of 266 each), that passively or indirectly engaged with the conference by simply receiving the tweets. 31% of the 232 archived messages were shared by 'retweeting' (passing on a message) to followers in other networks. There is an expected overlap of followers between accounts (like-minded people following several users), however one delegate (Dr Kayt Armstrong @girlwithtrowel) had the single largest audience (1,373 unique followers) that passively received her messages.

10% of tweets were sent from non-delegates. Delegates tweeting from Vienna (**Table 1**) were mostly academics, however non-delegates that tweeted and actively engaged with the conference were mostly commercial surveyors (or companies). Young researchers and research institutes made up a higher proportion of the non-delegate category than the delegate category. 12 non-delegates retweeted 13% of messages to an audience of 3,094 combined followers (an average of 258 each). The tweets sent by delegates were not associated with the conference organising committee. Where the age of individual Twitter users is known, most were written by people under the age of 40 and 32% of users were female.

	Delegates	Non-Delegates
Academics	56%	25%
Commercial Surveyors/ Companies	26%	50%
Young Researchers (Post-graduate)	14%	17%
Research Institutes	4%	8%

Table 1. *Twitter users that engaged with the Conference.*

What did they say?

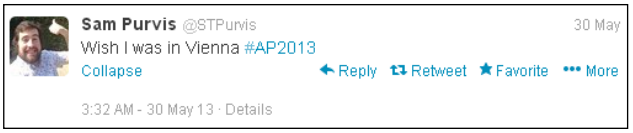
49% of tweets were neutral commentaries of papers (Dr. Anthony Beck @AntArch made a tremendous effort to summarise as many as possible). These were the most retweeted type of messages, both among delegates and non-delegates.

22% of tweets were positive comments that happily outweighed the negative comments (5%), which were equally balanced out by jokes and frivolity (5%). 3% of tweets were questions or queries about a paper. 16% of tweets focused on the general atmosphere, excitement and anticipation of the conference - a great endorsement of the organising committee and the quality of social events they offered - and these were some of the most popular messages retweeted by non-delegates who were enjoying the 'buzz' generated by a Twitter interaction. Hopefully this will encourage non-delegates to attend the conference in the future, but crucially it shows that there is a 'market' for a social media audience.

continues on page 11

What is the point of it all?

Jimmy Adcock (@geofizzboy) has written an excellent summary (Adcock 2013) of his (remote) experience of the conference via Twitter. Like many non-delegates, unable to attend due to work commitments, Adcock found that he could interact with delegates about themes that were relevant to him. Non-delegate Martin Roseveare (@archaeophysica) felt that he couldn't ignore the Twitter feed because he risked missing an interesting discussion. Other non-delegates reported that the live tweets were informative and compensated for their own absence by giving the perception of being involved in some way, but it also emphasised the need to attend conference in the future.



Some young researchers in Vienna preferred to pose a question amongst their Twitter-peer group rather than ask during the Q&A session. In most instances they received positive feedback and encouragement from their peers that gave them the confidence to formally vocalise their observations during a Q&A session, causing further debate and enriching the session for everybody. This is a positive outcome as the place for questions (and answers) should always be the conference floor.

There will always be opportunities for debate beyond a Q&A session (during the social session etc.), and in this respect Twitter is merely an extension of that, enabling conversations between people that don't normally interact, extending the networking opportunities offered by the conference. This was especially true for those delegates that did not present papers and were perhaps 'less visible' than others.

The social media experience of AP2013 was positive and engaging and this could be encouraged for future conferences, along with the other new outlets such as the multimedia presentations that worked very well in the social sessions. A number of people suggested that an official live Twitter feed (used at other international archaeological conferences) could be organised for future ISAP gatherings and that it would be a powerful marketing tool to engage with non-members. Those with an interest in the burgeoning use of social media in archaeology should see Richardson (2012).

To conclude, I'll leave you with the thoughts of non-delegate Jimmy Adcock who felt that the use of Twitter in Vienna was "damned good advertising - as I read the tweets from this year (including details of the venue and the arrangements for going out of an evening!) I thought to myself 'I'm definitely going to have to try and get to the next one....'"

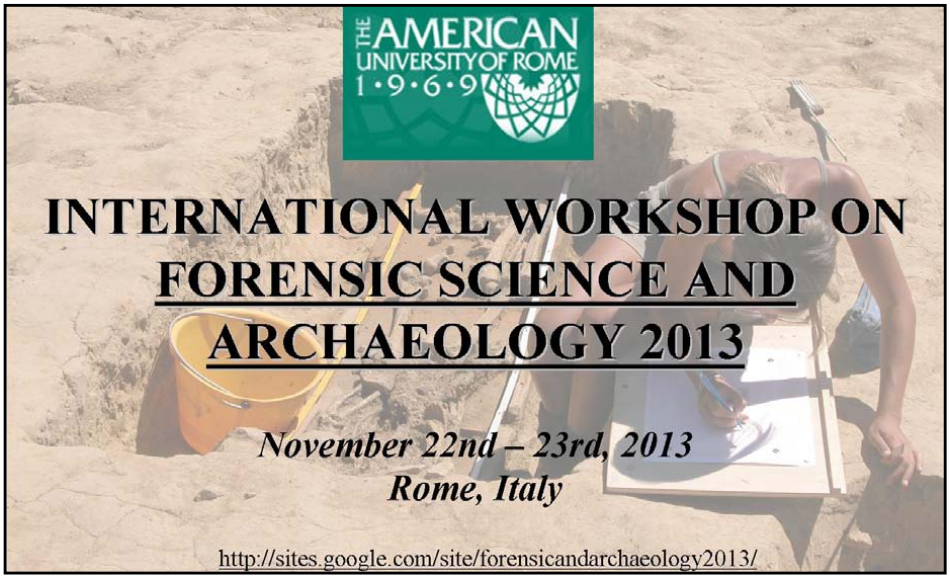
See you in Poland for #AP2015

References

Adcock, J. 2013. Conferencing From Afar - connecting with content via social media. https://docs.google.com/file/d/0B1yfAD6BKmoFQnJtWk55dmRqQ00/edit?pli=1

Beck, A. 2013. AP2013Tweets. https://docs.google.com/spreadsheet/ccc?key=0AoWPeu0ZtgUIdGw0TUJfWVRINWZwdm9MTlVIOHdyVUE

Richardson, L. 2012. 'Twitter & Archaeology: An Archaeological Network in 140 Characters or Less' in *Archaeology & Digital Communication* (ed. C. Bonacchi), Archetype Publications.



www.aur.edu • www.geoscienzeforensiitalia.com

The American University of Rome is organising an International Workshop on Forensic Science and Archaeology, a free scientific symposia devoted to the advancements in forensic archaeology. The conference is aimed at presenting a wide range of scientific and technical information of high standard to archaeologists, scientists, and police investigators. The goal of the workshop is to spread knowledge about forensic archaeology and its use, as well as to provide a unique possibility for participants to exchange ideas about the advances in their work and discuss their results. The official language of the conference is English.

Day 1: Locating Crime Sites

Contributions to this topic are solicited on (but not limited to): Remote Sensing • Geophysics Photogrammetry • Spatial/Aerial Image Analysis • Airborne • LiDAR • Cartography • Topography Geospatial imagery • Digital Imaging • Non-Destructive Techniques • Geomorphology

Day 2: Analysing Crime Sites

Contributions to this topic are solicited on (but not limited to): Archaeology • Geoarchaeology Pedology • Anthropology • Archaeobotany • Osteoarchaeology • Palaeopathology • Bioarchaeology Archaeozoology • Taphonomy • Funeral Archaeology • Paleogenetics

Abstract Submission

Authors are invited to directly submit papers of about 150 words by email (forensics@aur.edu), including a clear indication on the preferred topic, and no more than one image. Papers should present original pertinent work not submitted or published elsewhere. The Technical Review Panel will decide the submissions' relevance and authors will be notified regarding the acceptance or rejection of the abstract. Authors are requested to provide a high quality, A4 Microsoft Word version of their manuscript. Note that all manuscripts must be written in English. Authors should proofread all text for spelling and grammar.

Deadline for submitting an abstract: Sept 14th 2013. Notification of Acceptance: Oct 1st 2013.

General Chairs: Prof. Valerie Higgins & Prof. Pier Matteo Barone (American University of Rome)

Sponsored by:

The DART Project

Investigating what lies beneath our soils
Making the intangible tangible

Horizon Scanning Workshop

17th September 2013, 9.30am to 4.30pm.
University of Leeds, EC Stoner Building, Room 9.90

Detection of Archaeological Residues using remote sensing Techniques (DART) is nearing completion of a three year, Science and Heritage funded initiative. To examine the complex problem of heritage DART has attracted a consortium consisting of 25 key heritage and industry organisations, academic consultants and researchers.

Enhanced knowledge of archaeological residues is important for the long-term curation and understanding of a diminishing heritage. There are certain geologies and soils which can complicate the collection and interpretation of heritage remote sensing data. In some of these 'difficult' areas traditional detection techniques have been unresponsive.

Over a 14 month period the DART project has intensively collected different geotechnical, environmental, geophysical and remote sensing data. The project team have analysed this data and started to develop a deeper understanding of contrast factors and detection dynamics. This workshop will share these results and examine ways in which they can be best used to improve research, practice, curation and engagement.

We need your help to define outputs which will benefit the whole heritage community.

Provisional Programme

09:30 Registration and Coffee

The DART Project

10:00	Welcome	*Tony Cohn*
10:10	DART precis	*Anthony Beck*
10:30	Research summaries	*Dan Boddice, Rob Fry, David Stott*
11:15	Bringing it all together	*Anthony Beck*
11:30	Modelling the data	*David Jordan*
11:45	The future: mining the data	*Tony Cohn*
12:00	DART research discussion	
12:45	Lunch	

Community Discussions

13:30	Practitioner impact	*ISAP Armin Schmidt AARG Oscar Aldred Keith Wilkinson*
14:30	Policy/Curatorial impact	*Quinton Carroll Dave Cowley/Peter Horne*
15:00	Community impact	*John Wells*
15:30	Building bridges: establishing effective collaborative networks	*Bob Evans Toby Mottram*
15:55	Discussion and final remarks	
16:30	Close	

Aims & Objectives

- To provide an overview of the DART research advances and data outputs.
- To examine how DART outputs can be used by different stakeholder communities.
- To identify areas of development that build on DART.
- To influence future policy objectives, research directions and funding programmes that support similar approaches.

Further information & directions:

www.dartproject.info

www.comp.leeds.ac.uk
dart-workshop@comp.leeds.ac.uk

Free admission. Lunch and refreshments will be provided. Travel bursaries are available.

Registration is required:
dartproject.eventbright.com

www.twitter.com/DART_Project

Call for Papers
SAA Annual Meeting: 23-27 April 2014

'Not just for Specialists: Applying Geophysics in Archaeology. A symposium sponsored by the International Society for Archaeological Prospection.'

We are in the process of organizing an ISAP sponsored session at the Society for American Archaeology's 2014 Annual meeting. The aim is to improve communications between ISAP members and American archaeologists interested in prospection.

The 2014 meeting of the SAA will be in Austin, Texas, a really fun city to visit, from April 23 - 27, 2014. Austin is well known for its excellent music scene, wonderful food, and active nightlife. Presenters will need to join the SAA, at least for 2014.

Draft Session Abstract:
Archaeological geophysics has moved from the domain of the specialists to a familiar tool that archaeologists worldwide routinely use to investigate sites. The papers in this session provide examples of how geophysical surveys are currently being incorporated into archaeological projects. They illustrate the range of geophysical methods that archaeologists are now using to investigate sites throughout the world. They also show how geophysical methods are firmly integrated into standard archaeological practice at all types of sites, from small to large, and from many different time periods, in many different environmental and geological settings. Papers can either present the results of geophysical prospection from a specific project, or review a particular geophysical technique based on different case studies.

The basic symposium can include a maximum of 16 presentations (15 minutes each) but a minimum of 8 papers is required to gain SAA approval of this session. The SAA deadline for proposing this session is **September 12, 2013**. Individual presenters will submit their abstracts later if the session is accepted. In order to make this viable we require commitment form ISAP members who are interested in presenting in that session at the next SAA conference.

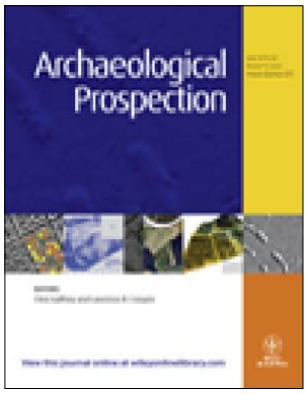
Please send your contact information and a title for your paper to **mschurr@nd.edu** by September 10 before midnight (defined as 12:00 AM Eastern Daylight Time/New York time). As stated above, the abstract is required later. The deadline is short, so please contact me as soon as possible. I would also be happy to answer any questions you might have. Young investigators are especially encouraged to submit. As part of ISAP's commitment to advance archaeological prospection on all levels it will award a small number of bursaries to non-American members to asist with the costs of attendance. Details will be published in due course.

Hope to see some of you in Austin next spring!

Mark Schurr
Dept Anthropology,
University of Notre Dame

Conference web page: http://saa.org/Aboutthe Society/AnnualMeeting/tabid/138/Default.aspx

Journal Notification:
Archaeological Prospection 20(3)



The Journal's Impact Factor (21012) has recently been announced as 1.489. We would like to thank the authors for producing excellent articles and the associate Editors and referees for their hard work in maintaining the journal's high academic standards.

Dr Chris Gaffney and Prof Larry Conyers

The next issue of *Archaeological Prospection* contains the following articles:

Panisova *et al*
Microgravity and Ground-penetrating Radar investigations of subsurface features at the St. Catherine's monastery, Slovakia.

Pincus *et al*
Ground Penetrating Radar and Electromagnetic Archaeogeophysical Investigations at the Roman Legionary Camp at Legio, Israel.

Jason T. Herrmann
Radar Facies Analysis of Archaeological and Sedimentary Deposits at Saruq al-Hadid, United Arab Emirates.

Ortiz *et al*
Three-Dimensional Modelling of Archaeological Sites Using Close-Range Automatic Correlation Photogrammetry and Low-Altitude Imagery.

Bonsall *et al*
Assessment of the CMD Mini-Explorer, a new Low Frequency Multi-Coil Electromagnetic Device, for Archaeological Investigations.

To subscribe to the journal and receive a substantial membership discount see the ISAP website.

Academic Courses

MSc. Archaeological Prospection – Shallow Geophysics, The University of Bradford, UK.

The course is a highly focused postgraduate degree programme which develops specialist skills in the theory and practice of archaeological prospection, in particular in near-surface geophysics.

It provides students with knowledge and experience of the principal geophysical and geochemical techniques currently available for the detection of buried archaeological features and other near-surface targets. The course provides appropriate background to materials and soil science, together with the relevant mathematical principles.

Other methods of detection such as remote sensing, topographical survey and field-walking are introduced as essential components of an integrated approach to landscape assessment. Sampling procedures and the computer treatment and display of field data from all methods are critically examined with the aid of case studies based on field experience. Skills and knowledge are developed through lectures, seminars, laboratory and fieldwork classes and a substantial individual research dissertation.

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- In-depth specialist training, including hands-on experience in the Division's geophysics and computer laboratories and in the field
- First destination figures indicate that about 85% of postgraduates in Archaeological Sciences achieve work or further studies in the discipline or cognate areas

Course Syllabus:

- Electrical Methods of Survey
- Magnetic & Electromagnetic Methods of Survey
- Site Evaluation Strategies
- GIS for Practitioners
- The Nature of Matter
- Treatment, Display and Interpretation of Field Data
- Soils and Chemical Prospection
- Dissertation (MSc)

For more information, visit: http://www.bradford.ac.uk/postgraduate/archaeological-prospection-shallow-geophysics/ or contact Dr Chris Gaffney (c.gaffney@bradford.ac.uk).

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- Dissertation

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- Geoarchaeology
- Maritime Archaeology

Cover image: Magnetometer survey on the West Bank of Thebes, Egypt (photo: Angus Graham)