ISAP NEWS

The newsletter of the International Society for Archaeological Prospection

Issue 38
March 2014

The UK Commercial Archaeological Geophysics Seminar 2014:

Guidelines?

Speed vs resolution?

Data archiving?

Multiple methods?

Quality management?

Sampling strategies?

Efficiency *and* flexibility?

Welcome to the 38th issue of ISAP News. We hope everybody had a relaxing Christmas break (it seems a long time ago now!) and is having a productive 2014 so far.

This issue is out a little later than usual in order to allow us to include feedback from the first Commercial Archaeological Geophysics Seminar, held in Bradford, UK, 14-15th March 2014. The two day event, which aimed to bring together all those involved with commercial geophysics, ranging from practitioners to planners, consultants and curators, generated some animated discussions and interesting debates. This issue therefore comprises a compilation of short write-ups from a range of attendees: inevitably there is is some overlap, but the contributers have picked up on those aspects of the conference content, organisation and outcomes of particular interest to them, and we have collated their thoughts with the aim of providing an idea of how this new venture went for those who were unable to make it or are based outside the UK. (Unfortunately, none of the 'end users' of geophysics could be persuaded to commit their thoughts to paper, but the general consensus among them seemed to be that it was a positive and beneficial experience.)

You may have noticed already that we have a shiny new look for this issue. As you can see, this includes an image on the front page, so (of course!) we are looking for your photos or other images to use for this purpose. They can be working shots, geophysics-related abstract photographs, or striking data; they don't necessarily need to be linked to any other content you're sending us, but they need to be able to stand resizing if necessary. Please send them (nothing too hefty, please!) to the usual email address, with a sentence or two of text so we know what they are.

As usual, we would love to hear about your projects - preferably in about 700 words, with a couple of images. Please send any contributions, comments or queries for the next newsletter (ISAP News 39) to the email address below by the 31st May 2014. All entries are gratefully received!

And just a quick reminder that if you haven't already renewed your ISAP membership, it was due in January - the link is below.

Rob Fry & Hannah Brown

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Cover photograph: fluxgate gradiometer survey of a Viking winter campsite at Torksey, Lincolnshire, UK. (Photo: Hannah Brown).

UK Commercial Archaeological Geophysics Seminar 2014

Jimmy Adcock, CAGS 2014 Committee

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The first UK Commercial Archaeological Geophysics Seminar (CAGS) took place in March at the University of Bradford. The meeting was organised by the Bradford Centre for Archaeological Prospection (B-CAP) with assistance from the Institute for Archaeologists Geophysics Special Interest Group (IfA GeoSIG). The aim was to bring together those who provide geophysical services with those who commission them to improve their understanding of each other's "worlds".

There were 86 attendees with a roughly 50/40/10 split between providers, users and curators of geophysical services. A wide range of subjects were covered in Friday's thirteen talks, ranging from training needs to technological developments, and clients' perspectives to overseas viewpoints. There was a good following online via the live feed on YouTube (archive available on the B-CAP webpages - see below) and also amongst Twitter users, both national and international. The presentations led into a series of interesting discussion sessions from which common themes kept resurfacing. These may be useful in forming a roadmap, not just for the direction of future meetings, but potentially for defining areas where the UK archaeological geophysics sector can enhance the services it provides.

There was a good attendance at the workshops which ran on the morning of the second day (despite a very lively social event on the Friday night). These were split between hardware demonstrations and sessions looking at the planning process and current industry guidelines.

The CAGS Committee are in the process of putting together a précis of the event, summarising the main outcomes from the meeting, which will be available on the B-CAP website in the coming weeks. The committee would once again like to thank the member groups of B-CAP (Bradford University Archaeological Sciences, Geoscan Research and GSB Prospection) and the IfA for sponsorship of various elements of the event, as well as all of our speakers, workshop hosts and commercial exhibitors.

Hosted and organised by: B-CAP

in association with: GeoSIG Geophysics Special Interest Group

For full details of the conference programme and to access the live feed archive please visit the B-CAP website:
www.b-cap.co.uk

The grass is always greener on the other side: peering over the Anglo-Irish fence at CAGS2014

James Bonsall, Earthsound Archaeological Geophysics

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Over the last 5 years I've attended all the major archaeological geophysics gatherings, from the mostly academic Archaeological Prospection conferences, to the mostly archaeological EAA conferences, via the nicely mixed NSGG Recent Work in Archaeological Geophysics. CAGS2014 though was quite a different beast - the first dedicated to the work of commercial archaeological geophysics. Having spotted several gaps in the conference market, the organizers encouraged the 'remote' participation via social media by broadcasting a live-stream of presentations over the internet and arranged for some very interesting and worthwhile workshop sections that added an extra dimension that has long been absent from other geophysical conferences.

The range of papers was very good (including views from curators, consultants and practitioners) and whilst CAGS2014 was understandably UK-centric – reflecting the world's largest commercial archaeological geophysical market – it also incorporated presentations from Norway (Arne Anderson Stamnes, NTNU), Germany (Cornelius Meyer, Eastern Atlas and Armin Schmidt, GeodataWIZ) and – in my own case – the Republic of Ireland. These not only added an international flavour, but also held up a mirror to the UK-model of commissioning work and acquiring data. I found that the vast majority of themes discussed were directly transferable and applicable to my own work in Ireland and that the difficulties faced by UK geophysicists were also similar. I was quite surprised that no other Irish-based delegates attended the conference. This was clearly

a missed opportunity, not only for networking but also for finding out the current status of work practices in the UK - particularly given that projects in Northern Ireland are often carried out by consultants in the Republic.

It was very interesting to note that the latest technological developments presented at AP2011 in Izmir are now commonly used by commercial practitioners in the UK. I found it worthwhile hearing from other geophysicists and curators, particularly when they confirmed to me that the UK had now seemingly abandoned the use of unrecorded magnetometer scanning (leaving some Irish consultants as possibly the only geophysicists left in the world still carrying out that practice), in favour of detailed magnetometry.

Informal discussion amid exhibited kit. Photo: CAGS2014 Committee.

Having assumed that multi-method assessments were de rigueur for UK surveys, I was surprised to learn of the almost exclusive use of magnetometry. In a country where surveys >100 ha are now considered routine, magnetometry is often the only technique used in the UK, driven seemingly by archaeological consultants and some curators. Rob Fry (Archaeophysica Ltd) highlighted the absence of multi-method assessments and made a compelling case for why these should be used as a matter of routine, rather than as the exception. Like Ireland, archaeologists and curators in the UK need to decide if geophysics should be used to identify archaeological sites, or simply to 'tick the box' on a planning requirement for a 'geophysical survey'.

Whilst the papers at CAGS2014 provided the main attraction, some of the best aspects of the conference were found during the discussion sections. Following a brief Q&A, a wider discussion between presenters and delegates was opened up in a more relaxed atmosphere following a coffee break. As expected, one of the most colourful debates was the use of 1m or 0.5m line-spacing for magnetometry and how that should be costed, but everyone agreed on the benefits of the method and it seems that the next challenge is to impress these benefits upon archaeologists and curators.

Academic geophysical researchers might question the relevance of such a conference but they will have a lot to learn from the commercial experience offered by CAGS2014. The sheer scale of current assessments in the UK means that commercial geophysicists are now routinely collecting sizeable (and often high-resolution) datasets that far outstrip the 'large-scale' surveys collected by some research institutes. The commercial surveyors should in turn also benefit from the verification of their findings via subsequent (and extensive) excavations, offering a unique insight into the success of geophysical techniques which are unlikely to be matched by research institutes (potentially hindered by a lack of ground-observed data) on a similar scale.

Coming over from another country to present my own paper on this occasion, I'm now in a position to consider remotely accessing any future CAGS meetings via the internet - however I found the entire CAGS2014 experience to be a great success, something that cannot entirely be captured by the live-stream experience; the debates, commercial stalls, workshops and social aspects were just some of the reasons that made the conference well worth attending. Overall, I got a lot out of it and I'll certainly be attending future meetings (in person).

> *"I personally thought the interaction between the conference delegates and the exhibitors was good, but it did take until the afternoon of the 14th before the delegates wanted to hold a conversation about the equipment and services on offer. The layout of the common room was suitable and ensured on entering the room delegates would see all of the exhibition stands. Compared to other conferences and exhibitions I believe that CAGS2014 was more valuable to relations between exhibitors and delegates than any other I have recently attended. Due to the success of the inaugural CAGS a larger venue will certainly be required next time."*
>
> **Exhibitor at CAGS2014**

CAGS2014: the view of an online participant

Andreas Viberg, Stockholm University

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By a happy coincidence I looked through my twitter feed and found several links to an online live stream from CAGS2014. The seminar was an important complement to the biennial International Society for Archaeological Prospection (ISAP) conference, as the commercial aspects of archaeological geophysics are rarely the foci at these events. I did not have the possibility of attending the actual seminar in person and I therefore took the opportunity to join the discussion as an online participant. As I am working in a country where the use of archaeological geophysics, as well as the number of its practitioners, is limited, the possibility to draw on international and cross-disciplinary networks and to partake in international seminars and conferences are essential.

The different sessions dealt with questions regarding, for example, the density of data collection in commercial geophysical surveys, the archiving of geophysical data, and the benefits of integrated survey strategies, as well as discussions focusing on the complex relationship between the cost of a survey, survey speed, ground coverage and the quality and depth of subsequent interpretations in commercial archaeological geophysics. The conference participants were also offered a view into the development of commercial archaeological geophysics in Norway as well as an evaluation of the success of magnetic prospection methods in Ireland through the study of legacy data from Irish road corridor surveys. The oral presentations all highlighted the fact that we all face similar obstacles and challenges regarding the use of archaeological geophysics, and the continued sharing of experience within the community will be important for the future development and improvement of many aspects of commercial archaeological geophysics throughout the world. In light of these conclusions, the possibility of making seminars and conferences, such as this, available online could be a valuable addition to already well-established forums.

The quality of the broadcast pictures and sounds was, for the most part, excellent, however, the questions asked by the audience and the subsequent discussion at the end of each oral presentation was often times lost because of the lack of microphones in the auditorium. This could easily be amended by providing wireless microphones to anyone contributing to the post presentation discussion or by simply activating a microphone registering the ambient sounds of the auditorium at the end of each talk. For future live feeds it would also be valuable if questions, for example posted on Twitter from online participants, could be forwarded to the presenter and the audience after each talk. Perhaps someone could be responsible for following the social media discussions and for forwarding selected questions after each presentation?

The success of the live stream from CAGS raises the question of similar initiatives for future ISAP related conferences and seminars. Of course appropriate measures must be taken to ensure that, for example, unpublished data and sensitive archaeological sites are protected from dissemination on the internet. This could, for example, be solved by only making selected conference sessions and seminars available online. Such an initiative would not only be beneficial to the dissemination of research results but would also provide archaeologists, and other interested parties, with the opportunity to learn about the pitfalls and possibilities of archaeological geophysical prospection, as applied to a wide range of archaeological sites. Such an increased awareness would benefit both research based and commercial archaeological geophysics worldwide.

The live feed is available on the B-CAP website

CAGS2014 seen from a Scandinavian perspective

Arne Anderson Stamnes, Norwegian University of Science & Technology (NTNU)

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With attendees and presenters from many of the major archaeological geophysical consultancy companies in the UK, as well as archaeological consultants and county council officers, the scene was set for a range of discussions and topics that I personally found very interesting, seen from my Scandinavian experience and perspective. While it is clear that the usage of geophysical surveys within archaeological site evaluations have a much larger acceptance in the UK than in Norway, it was interesting to note that you also face some of the same issues and reservations. The phrase "geophysics does not work" is a repeating one, along with the "we will trench anyway, so why bother?". In Norway, geophysical survey is yet to become an integrated part of Norwegian Cultural Heritage Management. While we see an increased usage of geophysical methods in Norway and Sweden (Stamnes & Gustavsen 2014, Viberg *et al*. 2011), out of all surveys performed in Norway before March 2014 - 224 in all – only 37% have been for development planning and dissemination purposes. The challenge is finding the right instrumentation and field methodology, which includes all aspects of discussion during CAGS2014. Revisiting excavation evidence, performing quantitative analysis of geophysical anomalies, and cost-benefit analysis of the added knowledge gain for proper management and legal protection of cultural heritage sites are all topics that it is important to address in the future.

It is clear that increased data-gathering speed could move the potential of projects and information gain from 'sites' to 'landscapes'. With this in mind, important discussions included the challenges of disseminating knowledge to decision making bodies, sampling strategies and sampling density. Some of the issues involved were summed up nicely by Mark Whittingham: his talk "Should 0.5m traverse spacing be the new standard for commercial magnetic survey?" was subtitled "What is the role of geophysics in archaeology" and sub-sub-titled "What are we here for?". Coming from an area where ephemeral archaeological features is what we most often go out to trench for, it is clear that in Scandinavian areas we miss much if we stick to a 1m traverse.

I also found James Bonsall's discussion of 10 years of road works in Ireland, which included the effects of various geological ground conditions on the percentage of 'true positive' anomalies identified from magnetometer surveys, highly transferable to Scandinavian geological conditions. (True positives were in this instance anomalies interpreted as archaeology from the interpreter, and positively identified and validated as archaeology by the excavator.) I found it particularly interesting that the only representative from a hardware manufacturer to speak, Cornelius Meyer from Eastern Atlas, gave the most philosophical and thoughtful talk called "A tall order? Efficiency, flexibility and comprehensive interpretation in commercial magnetic prospection", in which he claimed that drawing anomalies is not interpretation, but correlation, and that translating geophysical data into archaeologically and cultural historically useful information is the most challenging aspect of this work. This, of course, is a tall order that requires the interpreter to have a certain pre-existing knowledge of the potential archaeology that might be present, as well as an understanding of the geophysical principals, which then enhances the quality of the end-result. Cornelius also stressed that an interpretation should only be considered a preliminary interpretation, as archaeological feedback could change our interpretations and improve the usefulness of the available datasets in the long run.

Another important discussion was whether the geophysical survey report should also include recommendations for further work or not. In the English Heritage Guidelines, it

Informal discussion session, aided by coffee and cake. Photo: CAGS2014 Committee.

is clearly stated that "*unless it is specifically requested in the specification, it is not appropriate for the contractor to launch into discursive assessments of archaeological importance or to make curatorial recommendations*". My personal view is that whoever performs the interpretations for a geophysical archaeological evaluation, should also be skilled enough in archaeology to be able to deliver such recommendations, and/or willing to go into a dialogue with the planning authorities. Jimmy Adcock from GSB Prospection stressed exactly this issue, arguing for an overall better potential for good practice if the geophysical consultant could be drawn into all phases of a development. This will give a better overall product, and provide the basis for a more professional service, but sets a certain requirement on the skills and experience of the geophysical consultant.

The CAGS-2014 conference therefore provided me with much food for thought in how this might be performed, and how the same challenges we face in Scandinavia are being addressed in the UK, or vice versa.

Stamnes, A. & L. Gustavsen, 2014. Archaeological use of geophysical methods in Norwegian cultural heritage management - a review. In Kamermans, H. *et al. A Sense of the Past. Studies in current archaeological applications of remote sensing and non-invasive prospection methods.* BAR International Series 2588.

Viberg, A., I. Trinks & K. Liden. 2011. A review of the use of geophysical archaeological application prospecting in Sweden. *Archaeological Prospection* 18: 43-56.

CAGS2014 from the exhibitors' point of view

Roger Walker, Geoscan Research

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Exhibitors attending CAGS 2014 for the two days were: Bartington Instruments, Geomatrix Earth Science, Geoscan Research, Korec, Mala and Utsi Electronics. For exhibitors, it is always useful to have a catch up with customers and demonstrate new products and in these respects the CAGS seminar was excellent.

Having the exhibition area located in the large common room where tea, coffee, informal debates and some sessions were held was excellent for integrating the seminar delegates and exhibitors. At some conferences the exhibitors have been isolated in another room and then interaction can be limited to tea/coffee breaks, but only if delegates positively seek them out – this leads to frustration on both sides, not just the exhibitors, with delegates afterwards regretting not taking the opportunity to discuss problems or solutions. Future conferences could improve the experience by following this format.

The outside workshop / demonstration session was very useful and informal and allowed delegates to compare, question and try out instrumentation and the exhibitors to gain valuable feedback. About 75% of the delegates were able to stay on for the second day workshops. Since part of the purpose of the seminar was to investigate the variety of survey options and innovative methods coming on stream or under development, those delegates gained the maximum benefit. Luckily the weather held out and we were not subjected to Yorkshire's reputation for rain, snow

Exhibitor stands in the coffee area. Photo: Roger Walker.

or worse. We were unable to access the primary test area due to an archery training session but the adjacent spot was just as accommodating and luckily there were no wayward arrows shot in our direction! The University of Bradford was an excellent location for this type of seminar and if the primary test area could be utilised then more thorough instrumentation demonstrations could be provided.

The conference sessions were invariably interesting, informative and well presented. It was very useful to hear the developer and contractor points of view and to see that there are still areas of standards for all of us to address. Since there were very few parallel sessions this enabled the exhibitors to attend the talks and join in the discussions afterwards, providing useful technical comments – this can be difficult to do when conferences are multi-session and staggered in time. So again, CAGS2014 was well structured. The Friday evening session at Glyde House was well

30 Years of Geoscan Research. RM85 immortalised in cake by Emma Wood. Photo: Mary Saunders.

attended and provided an informal meeting place for colleagues and old friends and a useful debriefing and discussion of the day sessions. One can, however, never have too much beer on tap for archaeological conferences so it was a shame the draft beer ran out and delegates had to relocate a short distance to another central pub.

Lunch time food was excellent and Geoscan Research very much appreciated the cake made by Emma Wood of GSB Prospection - a very edible RM85 in its own instrument carry case - to celebrate 30 years of instrumentation design and manufacture!

Overall, comments were very positive for both content and structure.

CAGS2014: a commercial viewpoint

Ben Urmston, Wessex Archaeology

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The announcement of a new conference specifically addressing the concerns of those 'procuring and using geophysical surveys' was welcome against the backdrop of the changes that the discipline has seen over recent years, interpreted by some as disenfranchisement and the apparent emergence of a diaspora of contractors. The seminar therefore promised the opportunity for a more functional gathering of practitioners and developers than could be expected from the more frequent academic fora we're used to.

The opening talks addressed some of the general goals of the seminar, being directed largely towards a lay audience. It was unfortunate, but perhaps not unexpected, that few such procurers or users of commercial geophysics were in attendance; however, the visible (and audible!) presence of both archaeological curators and consultants was noted and appreciated, and the focus of subsequent discussions reflected the audience composition. It is of some passing interest to note that those of us representing contractors offering both in-house geophysics & invasive fieldwork were unaccompanied by our 'digging' colleagues and that the major fieldwork units were markedly under-represented.

Commercial pressures and a lack of direct legislation led to some uncomfortable moments regarding the archiving of data; whilst most contractors are no doubt confident in their own data management and disaster recovery processes, the financial implications of long-term independent storage & maintenance will reinforce the current status quo. Depositing fully indexed and archivally stable data will most likely remain an aspiration until we're required to do it, thereby levelling the field for all contractors.

Further confirmation that not all geophysical surveys are equal was no revelation for many of us, although it's nice to know that someone is taking a wider view of the general quality. Whilst I would personally take umbrage at having to recollect some arbitrary grid of data, I appreciate the underlying scepticism! One wonders if there should be a general bar to entry; perhaps a nationally endorsed and policed scheme of accreditation?!

The most constant grounding to my interpretation of geophysical data is having an archaeologist give me a hard time over perceived inconsistencies. Working in the same office gives constant feedback; I would rather my original interpretation was accurate than the archaeologists have any call to question the survey. Implications from less experienced companies should be taken on their merits.

Colleagues working outside the UK brought the ever-stimulating perspectives on approach and experience outside of our commercial applications. Notably, the relative frequency of techniques and the favourability of different geological settings provoked some lively debate. Recent surveys in otherwise 'unpromising' locations have demonstrated the exception to the rule (forthcoming). Seeing a map of a neighbouring country detailing where geophysics works will only make everyone want one of their own!

The workshops on the second day of the conference offered a combination of the theoretical and practical. An overview of current UK planning legislation and the role played by geophysics within the more general archaeology niche was well received, and the high level of attendance and number of questions from academic and commercial colleagues alike demonstrated that the profession generally misunderstands the role played by geophysics in British archaeological evaluation; perhaps this is symptomatic of the general malaise affecting commercial geophysics?

Many commercial companies are now resorting to greater rates of data collection through the use of cart-based gradiometer & multi-sensor systems. There are clear benefits to such diligent geophysics, demonstrated to a degree by some of the delegates, but how do we address the European de-facto standard of double the UK data density? This would require a sea-change in both equipment and methodology; some would argue this is not supported by the current legal framework in the UK. As commercial geophysicists, are we attempting to meet the minimum standards or offer our clients enhanced risk management? To echo the concerns of one of the delegates, it looks like we are a discipline in something of a crisis.

The dominant themes of the conference seemed to be that, in the UK, developers misunderstand the efficacy and utility of archaeological geophysics and that we have consistently undersold the discipline to provide risk management, directly so in heritage management but also in UXO, utility mapping and such. There was much hand-wringing about the inability to secure and retain high-level skills in data collection and interpretation, notably through the reduction in the per-hectare rate applied across the industry.

Attendees in the Saturday morning Planning & Development workshop with Kirsten Holland, WYG. Photo: CAGS2014 Committee.

The seminar finished on largely positive notes, including the opportunity to engage with more consultants, clients and curators at future events. Thoughts for future directions in terms of philosophical and regulatory approaches rounded out the two days. The discipline is on the brink of some interesting changes and more bodies commissioning and producing good-quality archaeological geophysics will be key to determining the outcome of this transformation.

> “I attended this conference as a very junior member of the industry having only completed my University education within the last two years. In trying to get full time employment in this industry I have noticed that junior members of staff in an organisation are normally only employed on very short term contracts and, therefore, do not have the facility to instigate a rigorous professional development process. Financial constraints in projects and within organisations mean that there is little or no funding available to encourage staff to train.
>
> Attendance at conferences is one of the best methods of maintaining a continual professional development programme (a key requirement of membership of the IfA) and attendance at this conference was a highly successful enterprise. This was the first time I had presented a paper at a conference and it was received very favourably. Many delegates sympathised with my predicament and, most importantly, encouraged me to persevere. This type of support is always most welcome. This conference was a huge success and the organisers are to be congratulated for all the hard work they have put into it.”
>
> **Pete Aherne,**
> **Self-styled geophysics newbie**

> *On the conference side, it was an interesting meeting and definitely worth attending as it allows us to catch up with all customers at the same time. It is also good to see what the orientation in data collection trend is so as to ensure the equipment meets the requirement. If it comes up again, we will be there for sure.*
>
> **Exhibitor at CAGS2014**

CAGS2014 as experienced by an MSc Student

Mariah Ottersen, Archaeological Prospection Student, University of Bradford

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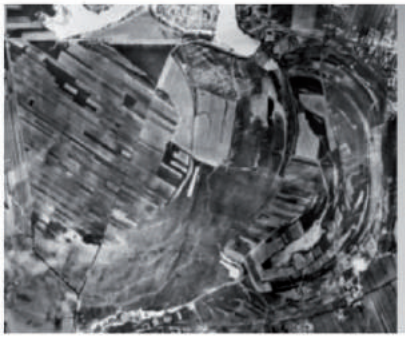
Attending CAGS2014 was an insightful experience for me. As a current MSc student in the Archaeological Prospection program, it was good to hear about some of the current issues that are talking points within the industry, giving me an idea of what I might face when I go out into the workforce. Of special interest to me, was how lively and heated the debate over the industry standard for sampling frequency and resolution became. There are two camps, as there always are with any issue, on how to look at the possible problem/solution scenario. I could easily sympathize with the viewpoints of both sides: more research is needed to take to clients and to warrant changing the guidelines in order to allow commercial firms of varying size the time to have enough equipment and staff on hand to meet the demand of intensified sampling resolution, versus the idea that the change needs to be mandated by regulations - especially as the physics supports the need for higher resolution sampling for archaeology - so that it can be enforced as necessary to the clients. Both sides of the argument are valid, as are the concerns raised about issues that will arise from taking either approach.

Still being at a disadvantage of not understanding or knowing about discussions that took place before the one at this conference, I was given the impression that it is an ongoing debate that has been brought to the forefront various times over the last several decades. I would like to think there will be a point in the future where time constraints at a site, regulations, client needs and willingness, the actual physics, and preservation of archaeology will all hold equal sway over how the issue is approached. Right now, the overwhelming consensus from both camps seems to be, unfortunately, that the commercial geophysics firms walked themselves into this corner on their own over the last several decades by offering cheaper services over larger areas, quicker, but at a lower than optimal resolution. Now that resources in the United Kingdom – equipment and personnel – are reduced, more work is being done by fewer people while still not being able to raise prices to what would be acceptable in other parts of Europe, prolonging this debate and complicating the issue and possible solutions. Unfortunately, I am of the belief that the clients will need to be forced into new practices by the commercial firms and English Heritage showing solidarity, even in their competitiveness, for a brief time and on specific issues before any real change will come about.

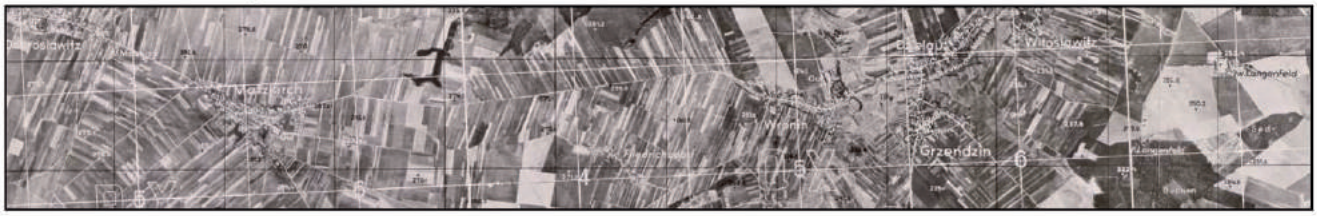


PATTERNS, PROCESSES & UNDERSTANDING:

HISTORIC AERIAL PHOTOGRAPHS FOR LANDSCAPE STUDIES

Poznań-Będlewo, Poland
24-26 April 2014

This conference aims to stimulate dialogue between those using historic aerial photographs in landscape studies. These underused sources of information for past landscape processes present opportunities and challenges that cross disciplinary boundaries. Significant urban and rural change has often intensively transformed landscapes, and historic imagery often offers unique information on areas that have changed dramatically. Varying approaches to interpretation will provide stimulating ideas on current practice and future directions.



The conference will be of interest to Archaeologists, Historians, Geographers, Cartographers, Planners, Environmental Scientists, Landscape Architects, Geologists and Geomorphologists, amongst others concerned with landscape processes in an historical context.

Organised by: Institute of Prehistory Adam Mickiewicz University in Poznań, AARG, ArcLand, Department of Archaeology University of Szczecin, RSPSoc and RCAHMS

Registration deadline: 28.02.2014 (early bird), 23.03.2014 (late registration)

Registration fee: 150,00 euro (late registration = 175,00 euro).

Conference fee covers: accommodation (3 nights), 2 lunches, 3 dinners, coffee/tea, conference package; shuttle from and to Poznan.

There is a limited number of places!

Closing date for offers of papers: 28 February 2014

Location and Venue: Będlewo – manor house

For more information and registration forms go to: http://archeo.edu.pl/bedlewo/

Institute of Prehistory Adam Mickiewicz University Poznań, Poland

aarg Aerial Archaeology Research Group

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Royal Commission on the Ancient and Historical Monuments of Scotland

National Park Service's 2014 Archaeological Prospection Workshop

The National Park Service's 2014 workshop on archaeological prospection techniques entitled Current Archaeological Prospection Advances for Non-Destructive Investigations in the 21st Century will be held May 19-23, 2014, at Aztalan State Park in Jefferson County, Wisconsin.

Lodging and lectures will be at the Comfort Suites in Johnson Creek, Wisconsin. The field exercises will take place at Aztalan State Park. Aztalan State Park is a National Historic Landmark and contains one of Wisconsin's most important archaeological sites. It showcases an ancient Middle-Mississippian village that thrived between A.D. 1000 and 1300. The people who settled Aztalan built large, flat-topped pyramidal mounds and a stockade around their village. Portions of the stockade and two mounds have been reconstructed in the park. Co-sponsors for the workshop include the National Park Service's Midwest Archeological Center, the Aztalan State Park, and the Wisconsin Department of Natural Resources.

This will be the twenty-fourth 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 Archeological Center's web page** at http://www.nps.gov/mwac/ For further information, please contact **Steven L. DeVore**, Archeologist, National Park Service, Midwest Archeological 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

Journal Notification

Archaeological Prospection 21(2)

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- Electrical Methods of Survey
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- Soils and Chemical Prospection
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Maritime Archaeology

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